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USNS BARTLETT CRUISE

TO THE GREENLAND SEA IN AUGUST 1990

DATA REPORT

Robert G. Paquette, Robert H. Bourke and Marla D. Stone

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Prepared for: Director, Arctic Submarine Laboratory Naval Oceans Systems Center San Diego, CA 92152

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CRUISE OF USNS BARTLETT

TO THE GREENLAND SEA IN AUGUST 1990

DATA REPORT

by

Robert G. Paquette, Robert H. Bourke and Marla D. Stone

ABSTRACT

As a component of the Greenland Sea Project, a hydrographic cruise was conducted on board the USNS BARTLETT during August 1990 in the southern Greenland Sea to continue the study of the southern half of the Greenland Gyre (GG) and the Jan Mayen Current (JMC) that was begun with the BARTLETT cruise of September 1989, previously reported by Bourke et al. (1989, 1990, 1992) and by Blythe (1990). A total of 44 high-quality CTD stations were occupied to depths of 1000 m. Contrasting with 1989, 21 instead of five of these stations extended to near bottom at depths of 2200 to 3500 m.



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I. INTRODUCTION

In support of the multinational Greenland Sea Project (GSP) a hydrographic cruise was conducted on board USNS BARTLETT (T-AGOR-13) during the month of August 1990 by personnel from the Naval Postgraduate School (NPS) and the University of Paris. The cruise statistics are presented in Table 1. This was the second NPS cruise in a planned series of cruises to investigate the circulation and water mass characteristics of the Jan Mayen Current (JMC). The GSP is a five year effort to monitor the water mass, current and dynamic structure of the Greenland Sea on a nearly continuous basis. Such monitoring is necessary as the Greenland Sea acts as the gateway between the cold, fresh polar waters of the Arctic Ocean and the warm, salty waters of the Atlantic Ocean. Climatological changes in one basin are readily transmitted to the other through the Greenland Sea.

The Greenland Sea is dominated by a broad cyclonic circulation which is shown schematically in Figure 1. The features of the various flows shown in this figure are derived from the circulation pattern described by Koltermann and Lüthje (1989, their p. 14), from information from a drifting submerged float (J. C. Gascard, 1990, personal communication) and from the BARTLETT 1989 dynamic topography. In the upper layers Polar Water (PW) exiting the Arctic basin flows southward along the east coast of Greenland. Beneath it, a little to the east and extending to depths of 600 m or more, the Return Atlantic

Table 1. BARTLETT 1990 Cruise Statistics

Vessel: USNS BARTLETT (T-AGOR 13)

Depart: Tromso, Norway, 2030, 1 August 1990

Return: Trondheim, Norway, 1200, 24 August 1990

Stations: 45 total.

Deep Casts: 21, maximum depth 3500 m.

Instrumentation: Neil Brown MK III CTD and 12-place rosette

sampler.

Scientific Party:

Prof. Robert H. Bourke, Chief Scientist, NPS

Prof. Jean-Claude Gascard, Univ. of Paris

LCDR David McCarren USN, student, NPS

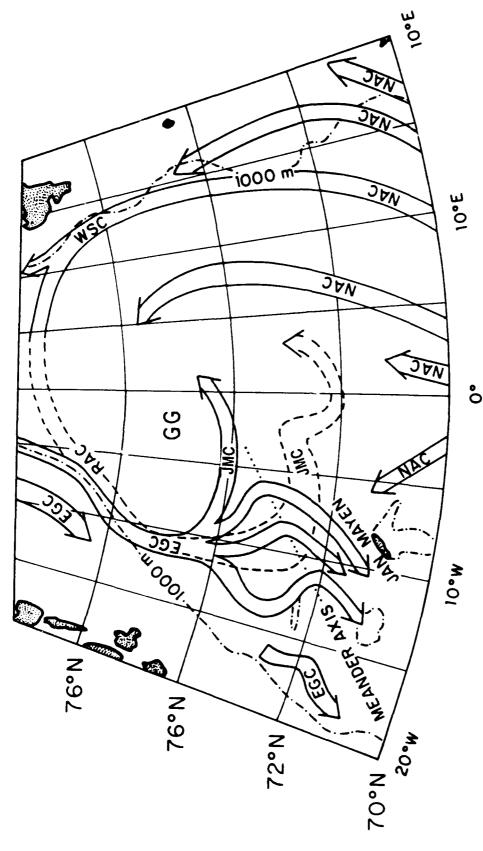
LCDR Eric Bayler USN, student, NPS

LT William Archer Wright USN, student, NPS

Mr. Olivier Gascard, Univ. of Paris

Ms. Marla D. Stone, oceanographer, NPS

Mr. Vernon N. Anderson, technician, NPS



from the dynamic topographics of BARTLETT 1989 (Blythe, 1990). The eastward movement of intermediate water, shown are as follows: East Greenland Current, EGC; Return Atlantic Current, RAC; Jan Mayen Current, JMC; various filaments dashed, is inferred from the drift of an acoustically tracked buoy at 500 m depth courtesy of J-C. Gascard. Abbreviations Figure 1. Greenland-Norwegian Sea surface and intermediate water mass circulation diagram. Much of this diagram is derived from Koltermann and Lüthje (1989) supplemented, particularly in the region of the Jan Mayen Current (JMC), of the Norwegian Atlantic Current, NAC; West Spitsbergen Current, WSC; Greenland Gyre, GG.

Current, an Atlantic Intermediate Water (AIW) with origin in the West Spitsbergen Current, flows southward similarly. Much of the strong northward flow on the east side of the GG is supplied by the Norwegian Atlantic Current (NAC).

The BARTLETT 1989 dynamic heights observed in Figure 2 (Blythe, 1990; Bourke et al., 1992) show that the sometimes postulated closure of the Greenland Gyre (GG) on the south in the zone between 72°N and 74°N may occur only in part. easterly filaments of the EGC do indeed close the gyre north of about 74°N. The more westerly filaments meander toward the east and then return to the EGC south of 71°N. The maximum deviation of the meander covers a range of over 130 km south to north. The meander occurs farthest to the south in filaments of the EGC nearest the Greenland coast. At least two other renditions of the dynamic topography of the surface (Gladfelter, 1964; Dietrich, 1968) agree with BARTLETT 1989 in showing these behaviors. It appears from the literature that most authors have considered the JMC to be collectively comprised of both the eastward flowing portion of the meander as well as the more northerly eastward throughput described above.

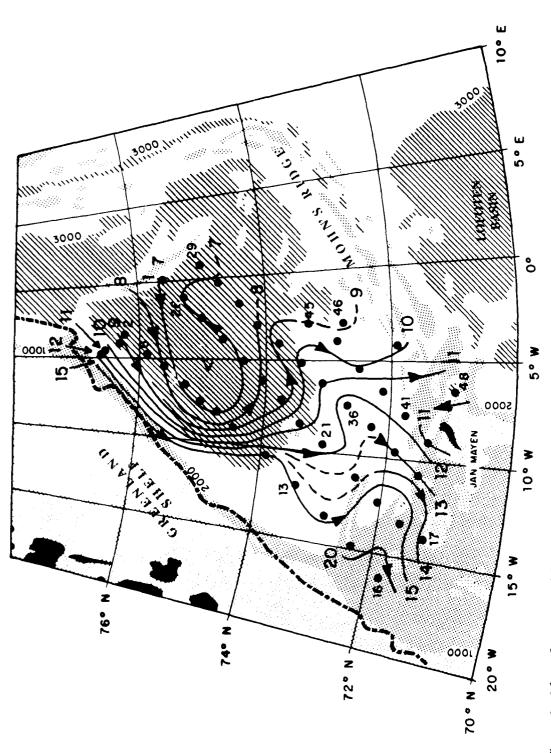


Figure 2. Map of geopotential anomalies of the sea surface referred to 1000 dbar from BARTLETT 1989 (Blythe, 1990; Bourke et al., 1992). The inferred baroclinic circulation indicates that only about half of the water turning east in the region of 72.N - 74.N actually completes the west-to-east traverse to close the Greenland Gyre on the south. The remaining half is involved in a meander of the East Greenland Current (EGC) that returns again to the EGC.

II. OBJECTIVES

The purpose of the cruise was to measure and quantify specific features of this current such as its speed, volume flow rate, areal extent, water properties, and fresh water contribution. In particular we wished to verify the meader-like nature of the upper waters of the JMC, i. e., its spatial and depth extent and volume relative to that portion of the current which continues eastward to the Mohn's Ridge. In addition, because the station grid was similar to that of 1989, we are afforded with the opportunity of making a comparison after one year and to extend this study of interannual difference as far back into historical data as is feasible. The much more widespread collection of deep-water data in 1990 will permit the study of the deep waters of the area and their mixing and propagation. In particular, the postulates of Swift and Koltermann (1988), Rudels (1986) and Soelen (1986) concerning the formation of Norwegian Sea Deep Water (NSDW) will be examined. They postulate that NSDW is formed in the Greenland Sea from Atctic Ocean Deep Water (AODW) and Greenland Sea Deep Water (GSDW) and flows through the Jan Mayen Fracture Zone north and east of Jan Mayen into the Lofoten Basin of the Norwegian Sea.

In addition to the oceanic measurements themselves, the cruise was tasked to recover four autonomous listening arrays installed in 1989 and designed to track the motion of SOFAR floats. The drift tracks of these floats will greatly assist the

corroboration of the mid-depth water motion as derived from numerical models and water property (core) analyses.

III. CRUISE PLAN

In order to achieve the objectives outlined above a series of north-south tending hydrographic lines were laid out from 72°N to 76°N which were expected to pass through the anticipated course of the Jan Mayen Current. The positions of these hydrographic lines were based on a CTD station census plan produced by the GSP Steering Committee to aid GSP participants in setting up their cruise plans (Figure 3). The desired goal of the census plan is to achieve as many repeat samplings of the water column as possible during the five years of the project in order to establish seasonal and interannual fluctuation statistics. Also shown on this chart is the location of an inter-calibration site (71°N, 4°E) near the center of the Lofoten Basin whose purpose is to determine the uniformity of deep water measurements among GSP investigators.

The positions of the actual CTD stations and the cruise track are shown in Figure 4 and are listed with the condensed data tabulations later in this report. The usual depth of sampling was to 1000 m (meters used interchangeably with decibars of pressure). The deep stations are marked with solid circles in Figure 4. At these stations, a second lowering was made,

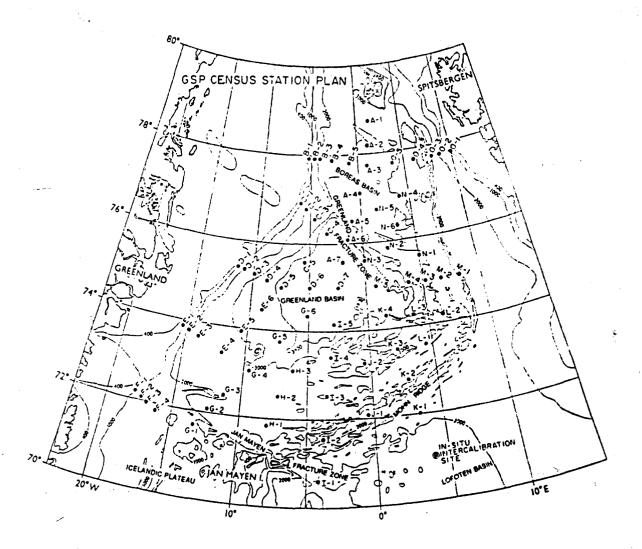


Figure 3. The Greenland Sea Project census station plan. BARTLETT operated generally west of the prime meridian and between 72·N and 76·N, but included the insitu intercalibration site as Station 00.

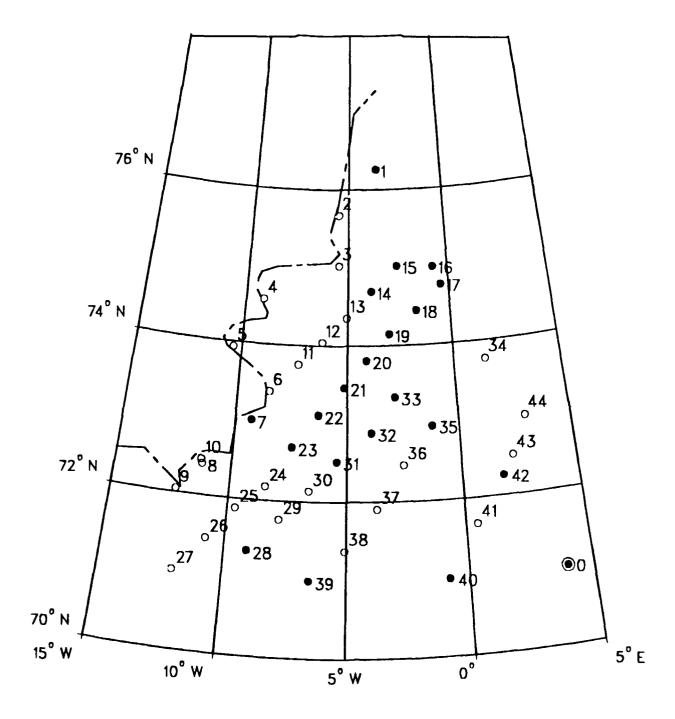


Figure 4. USNS BARTLETT station positions for the cruise of August 1990. Stations having a second cast extending deeper than 1000 m are shown as solid circles. The GSP intercalibration site at Station 0 is shown by a circle with a dark center.

recording from 1000 m to the bottom of the lowering, which was commonly 3000 m, once to 3500 m and near bottom in shallower water.

Water samples, about 12 per lowering, and uniformly distributed over the depth span, were collected for salinity measurements on nearly all lowerings. Thus, at deep stations, about 24 samples were taken.

IV. MEASUREMENTS AND ACCURACY

The CTD data acquisition program is designed to permit 8616 complete conductivity-temperature-pressure records to be collected, evenly spaced over the depth range selected prior to lowering. Hence, for our nominal 1000-meter depth casts, an average of 8.6 observations were collected per meter whereas, on a deep cast from 1000 m to 2200-3500 m, between 7.2 and 3.4 records per meter were collected. The instrument was lowered at a nearly constant average rate of 60 m min⁻¹ modulated, of course, by the roll of the ship.

By block averaging the initial editing program compressed data from the shallow cast to depth spacings of 1.0 m centered closely on the integral depth. In the case of the deep cast, the depth spacing was 2.0 m. Thus, over-all averaging is over 8.6 observations on the shallow cast and over 14.4 to 6.9 observations on the deep cast, the fewer observations being

associated with longer casts.

The corrections applied by the editing program were, in the case of temperature and pressure, determined from pre-cruise and post-cruise calibrations made in our laboratory. These before and after calibrations were acceptably similar and their means were applied to all the data. The conductivities were initially calibrated in this way, later to be refined by comparison with salinity samples taken with a rosette sampler. A complication in this process arose because of a small change in calibration when the CTD "fish" hit bottom on Station 23D, the "D" indicating the deep segment of the station. No spare cell was available so we were forced to treat the data in two parts, the "pre-crash" data supported by the pre-cruise calibration and the bottle salinities prior to the crash and the "post-crash" data, supported again by bottles and the post-cruise calibration. There was no noticeable effect of the crash on instrument stability.

Further calibration of salinity/conductivity was done by means of the rosette sample bottles, which were tripped on the up traverse of the CTD while hauling was stopped, and related to a CTD depth, salinity and temperature. For this purpose, the computer was programmed to compute a 15-second average of the data from the CTD and a standard deviation. Salinity samples from the rosette samplers were drawn into heavy-walled plastic bottles equipped with polyethylene cone closures as well as tight sealing screw caps. The salinities were measured in the laboratory after returning from sea, using an AGE Instruments

(Ottawa) salinometer referred to standard water batch P112.

Although both shallow and deep casts were instrumented with the rosette sampler, only the deep casts were used for calibration because of the more stable water and the smaller sensitivity to depth errors and internal wave activity.

The salinity calibration data set was relatively poor in quality, mostly because the borrowed rosette sampler used was in poor condition, with the result that the comparison of salinometer salinities (derived from up-traverse samples) with the down-going CTD salinities at the same nominal depths, computed station by station, had a relatively high standard deviation, an average of 0.0058. This was due to the presence of 31% of outliers more than one standard deviation from the mean. After removal of the outliers, the standard deviation for the entire data set (which is larger than the average of the station-by-station standard deviation after outlier removal) was 0.0042 psu. The mean error correction was applied as a constant term to the calibration. This process was carried through two iterations before we were confident of the result.

We then discovered that the CTD salinities at Station 00D, the inter-calibration site, were 0.007 psu higher in depths greater than 2000 m, than the excellent salinities derived from bottles at MOSBY 1989, Station 32 (Foldvik, 1990). Without at first understanding the cause of this discrepancy but having faith in the exceedingly slow rate of change of the water properties in the deep basins, we reduced the salinity by 0.007

psu and did the statistics still again. After outlier removal the standard deviation over 123 comparisons was again 0.0042 and the standard error of the mean was 0.00036 psu.

We later discovered the cause of the 0.007 psu discrepancy. The pressure sensor had a -9.2 dbar hysteresis error on the down traverse and some fraction of +9.2 dbar error when stopped briefly for bottle tripping on the up traverse. A pressure error of -9.2 decibars causes an error in the calculated salinity of about +0.0046 psu. The salinity computed using the apparent depth on the up traverse is also in error but with the opposite The error while stopped for sampling would be less than -0.0046 psu because the sensor diaphragm would have time to partially relax from its offset. The net result is to have the CTD down-going salinities be high compared to the laboratory salinometer by more than 0.0046, believably the 0.007 psu that we found. Thus, in subtracting the 0.007 psu we have made an approximate correction for the effect of pressure sensor error on salinity but have not corrected the pressures themselves, which will be 9.2 dbar too small, except very near the surface.

V. TABLES AND FIGURES

Tabular and graphical presentations of the data are presented in Appendices A and B, respectively.

VI. ACKNOWLEDGEMENTS

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APPENDIX A: TABULAR DATA

The tabular data are sub-sampled from the edited data at pressure intervals increasing with depth, similar to but more close-spaced than the classical standard depths. In the cases of the 21 deep lowerings the tabular data are recorded at 50 dbar intervals. As discussed in Section IV, the pressures are correct near the surface but, beyond some presently unknown pressure, there is a dynamic depth error of -9.2 dbar. The salinities are corrected for this error and only the depths are incorrect. Abbreviations and units should be mostly self evident. We have chosen units for electrical conductivity and for the specific volume anomaly (SVA) so that the tabulated data are numerically the same as in the units conventionally used in oceanography prior to the advent of SI units.

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	DBAR °C	PSU	m/s	kg/m³	dS/m	°C	kg/m³	×108	DYN M
45.0 7.709 35.077 1482.2 27.377 36.026 7.704 27.378 69.771 0.066 50.0 7.530 35.077 1481.6 27.404 35.862 7.525 27.405 67.314 0.063 60.0 7.519 35.117 1481.7 27.437 35.893 7.513 27.438 64.375 0.077 70.0 7.595 35.166 1482.2 27.465 36.014 7.588 27.466 61.922 0.076 80.1 7.662 35.198 1482.7 27.480 36.110 7.654 27.481 60.678 0.082 90.0 7.605 35.194 1482.6 27.485 36.008 7.596 27.487 60.333 0.088 100.0 7.568 35.207 1482.7 27.501 36.040 7.558 27.502 59.049 0.094 110.0 7.583 35.215 1482.9 27.505 36.066 7.572 27.507 58.813 0.100 120.0 7.573 35.223 1483.1 27.513 36.069 7.562 27.515 58.257 0.106 120.0 7.459 35.222 1482.9 27.528 35.970 7.494 27.531 57.077 0.117 150.0 7.438 35.222 1482.9 27.528 35.961 7.424 27.531 56.556 0.123 160.0 7.375 35.221 1483.0 27.536 35.961 7.424 27.533 56.556 0.123 160.0 7.375 35.221 1483.0 27.536 35.961 7.424 27.533 56.556 0.123 180.0 7.292 35.215 1483.0 27.538 35.900 7.360 27.542 56.372 0.126 160.0 7.438 35.228 1483.0 27.538 35.900 7.360 27.544 56.338 0.136 160.0 7.375 35.221 1483.0 27.549 35.827 7.275 27.549 56.075 0.126 180.0 7.292 35.215 1483.0 27.588 35.575 7.022 27.554 56.372 0.126 180.0 7.292 35.215 1483.0 27.549 35.727 7.275 27.549 56.005 0.124 190.0 7.241 35.288 1482.3 27.558 35.575 7.022 27.554 56.338 0.136 180.0 7.292 35.215 1483.0 27.582 35.359 66.53 27.544 56.338 0.136 180.0 7.292 35.215 1483.0 27.549 35.778 7.222 27.554 56.350 0.124 190.0 7.241 35.288 1482.3 27.567 35.511 6.943 27.579 54.543 0.152 180.0 6.657 35.164 1481.8 27.663 34.899 6.360 27.579 50.500 0.144 181.8 27.566 34.663 5.961 27.664 48.000 0.244 181.8 27.566 34.663 5.961 27.664 48.000 0.244 181.8 27.566 34.663 5.961 27.669 48.000 0.244 181.8 27.664 34.194 5.488 32.770 44.646 0.298 180.0 0.566 35.182 1480.2 27.566 34.663 5.961 27.669 48.000 0.244 181.8 27.664 34.194 5.488 27.792 44.664 0.298 180.0 0.566 35.182 1480.2 27.664 34.194 5.488 27.792 44.664 0.298 180.0 0.566 35.182 1480.2 27.664 34.194 5.488 27.792 44.664 0.298 180.0 0.257 180.0 0.2100 34.973 1481.3 27.696 34.699 27.608 27.794 19.198 0.360 0.257 19.000 0.2100 34.973	1.0 13.721 3.0 13.588 7.0 13.588 7.0 12.939 11.0 12.175 9.2 12.175 11.0 10.599 11.1 10.599 11.1 10.599 11.1 10.436 221.1 10.599 11.1 10.5	134.443211 34.4432111 34.4432111 34.4432111 34.4432111 34.4432111 34.4432111 34.4432111 34.4432111 34.4432111 34.4432111 334.4432111 334.4432111 334.4432111 334.4432111 334.4432111 334.4432111 334.443211111 335.11222111111 335.11232111111 335.112321111111111111111111111111111111	1501.8 1501.8 1501.8 1501.9 1501.9 1497.1 1497.1 1497.1 1498.1 1488.1	255.8146 255.88475 255.88475 255.88475 266.37874 277.18146 277.1818 277.181	41.0975021306600710807109278513092785333333333333333333333333333333333333	13.777777777777777777777777777777777777	25.817 25.8847 25.8847 25.8847 25.8847 263889 2678787 2712337 2	277.737.301.30.30.30.30.30.30.30.30.30.30.30.30.30.	00271150371336913579260300000000000000000000000000000000000

STA. 000S 71- 0.4N 003-57.1E 08/03/90 19.1 HRS GMT, 1000 RECORDS WIND KNOTS/DIR 012/355, AIR TEMP. 11.1° C, DEW PT 8.9°C, DEPTH 3129 M

PRESS	TEMP	SAL'TY	SNDSPD	SIG-T	COND	THETA	SIGTH	SVA	DYNDTH
DBAR	°C	PSU	m/s	kg/m³	ds/m	°C	kg/m³	×108	DYN M
5.1 7.1 9.1 11.0 13.3 15.1	11.028 11.0223 11.0223 11.0223 11.0223 11.09967 11	35.1129 35.1119 35.1119 35.1119 35.1119 35.1119 35.1119 35.1119 35.1119 35.1119 35.1119 35.1119 36.1119 37.	11111111111111111111111111111111111111	26.864 26.864 26.866 26.865 26.867 226.867 226.867 226.867 227.327 27.327 27.327 27.667 27.667 27.667 27.77	39,177887778877788779848875592593399,17787378468875597988799,177873784688755925999848875754585597537844444444444433333333333333333333333	11.0296598755617667098837712594334208288775561766719559111.111.111.111.111.111.111.111.111		17.7324 117.7340 117.7300 117.7558 117.95570 117.9558 117.9558 117.9558 117.9558 117.9558 117.9558 117.9558 117.9558 117.9558 117.9558 117.9558 117.9558 117.9558 117.9558 117.9558 117.9558 117.9558 117.958	0.00681 0.00681 0.00681 0.00116 0.0016 0.00116 0.00116 0.00116 0.00116 0.00116 0.00116 0.00116 0.00116

STA. 000D 71- 0.5N 003-58.0E 08/03/90 20.1 HRS GMT, WIND KNOTS/DIR 010/000, AIR TEMP. 11.1° C, DEN PT 8.9°C, 992 RECORDS DEPTH 3129 M **PRESS** TEMP SAL'TY SNDSPD SIG-T COND THETA SIGTH SVA DYNDTH o C kg/m³ DBAR PSU ٥C kg/m³ ×108 dS/m DYN M m/s 0.168 34.908 1466.5 28.022 29.567 0.120 28.u25 0.013 34.904 1466.3 28.028 29.444 -0.035 28.031 -0.132 34.903 1466.4 28.034 29.341 -0.181 28.037 1021.0 8.235 0.000 1050.1 7.271 0.002 1100.0 -0.132 6.232 0.006 1466.6 28.041 29.246 -0.318 28.044 1150.1 -0.267 34.903 5.120 0.009 29.191 -0.410 28.049 29.158 -0.476 28.053 1467.0 28.046 1467.6 28.050 1200.1 -0.358 34.904 4.323 0.011 1250.0 -0.422 34.904 3.767 0.013 1468.1 28.053 29.129 -0.537 28.056 1300.0 -0.480 34.904 3.193 0.015 1468.7 28.057 29.124 -0.537 28.056 1468.7 28.057 29.103 -0.596 28.060 1469.3 28.059 29.086 -0.644 28.063 1470.0 28.061 29.074 -0.685 28.064 1470.6 28.064 29.065 -0.724 28.067 1471.3 28.065 29.061 -0.755 28.068 1472.0 28.067 29.057 -0.789 28.071 1350.1 -0.538 34.906 2.538 0.016 1400.1 -0.583 34.906 1450.0 -0.622 34.907 2.063 0.017 1.664 0.018 1500.1 -0.659 34.908 1.167 0.019 1550.1 -0.687 34.907 1600.1 -0.718 34.908 0.895 0.019 0.449 0.020 1472.8 28.068 29.057 -0.815 28.071 1650.1 -0.742 34.908 0.191 0.020 1473.5 28.069 29.062 -0.837 28.073 1474.3 28.070 29.065 -0.860 28.074 1475.0 28.071 29.074 -0.877 28.074 1700.1 -0.761 34.908 -0.106 0.020 1750.1 -0.781 34.908 -0.3900.020 1800.0 -0.796 34.909 -0.6290.019 1475.8 28.072 29.081 -0.896 28.076 1476.6 28.072 29.090 -0.912 28.076 1850.1 -0.812 34.909 -0.9060.019 0.019 1900.0 -0.825 34.909 -1.1191477.4 28.072 29.099 -0.928 28.076 -1.287 1950.1 -0.838 34.908 0.018 1478.2 28.072 29.111 -0.941 28.077 1479.0 28.073 29.122 -0.955 28.077 1479.8 28.074 29.135 -0.967 28.078 1480.6 28.073 29.149 -0.976 28.078 2000.1 -0.847 34.908 -1.4940.017 2050.1 -0.859 34.908 2100.0 -0.867 34.909 -1.716 0.016 -1.9410.015 2150.1 -0.874 34.908 -2.048 0.014 2200.1 -0.880 34.908 2250.1 -0.884 34.907 1481.4 28.074 29.164 -0.986 28.078 1482.2 28.073 29.180 -0.993 28.078 -2.242 0.013 -2.3470.012 1483.0 28.074 29.197 -1.001 28.079 2300.1 -0.888 34.908 -2.5380.011 1483.9 28.074 29.213 -1.008 28.079 1484.7 28.074 29.231 -1.014 28.080 1485.6 28.074 29.249 -1.019 28.080 2350.0 -0.892 34.908 2400.1 -0.894 34.908 -2.683 0.010 -2.8450.008 2450.1 -0.896 34.908 2500.1 -0.898 34.908 -2.944 0.007 1486.4 28.074 29.267 -1.025 23.080 1487.3 28.074 29.287 -1.027 28.080 -3.101 0.005 2550.1 -0.897 34.908 -3.1930.004 1488.1 28.074 29.307 -1.030 28.080 2600.1 -0.896 34.908 -3.289 0.002 1489.0 28.074 29.328 -1.033 28.080 2650.1 -0.895 34.908 -3.3940.000 1489.8 28.074 29.348 -1.035 28.080 1490.7 28.074 29.369 -1.037 28.080 1491.6 28.074 29.390 -1.038 28.080 1492.4 28.074 29.412 -1.039 28.080 1493.3 28.073 29.433 -1.040 28.080 2700.0 -0.894 34.908 -3.480-0.001 2750.0 -0.892 34.908 -3.547 -0.003 2300.0 -0.889 34.908 -3.645 - 0.0052850.0 -0.886 34.908 -3.729 - 0.0072900.1 -0.883 34.907 -3.756 - 0.0092950.0 -0.879 34.908 1494.2 28.074 29.456 -1.040 28.081 -3.891 - 0.010

3000.0 -0.875 34.909 1495.1 23.074 29.478 -1.040 28.081

-3.975 - 0.012

STA. 001S 76-15.7N 003-32.8W 08/06/90 5.1 HRS GMT, 1001 RECORDS WIND KNOTS/DIR 018/015, AIR TEMP. 0.0° C, DEN PT 99.9°C, DEPTH 3000 M

STA. 002 75-40.3N 005-30.0W 08/06/90 12.1 HRS GMT, 1001 RECORDS WIND KNOTS/DIR 016/010, AIR TEMP. 1.1° C, DEN PT 0.0°C, DEPTH 3430 M

STA. 003 75-1.3N 005-28.4N 08/06/90 19.1 HRS GMT, 1001 RECORDS WIND KNOTS/DIR 010/030, AIR TEMP. 0.6° C, DEW PT -0.6°C, DEPTH 3494 M

3. 0 4 , 223 31, 377 1462.9 24, 883 29, 670 4, 223 24, 884 305, 855 0, 003 5, 0 4, 216 31, 376 1462.9 24, 883 29, 666 4, 216 24, 883 305, 881 0, 012 20 20, 481 31, 382 1463, 0 24, 887 29, 688 4, 216 24, 883 305, 881 0, 012 20 20, 216 20,	PRESS DBAR	TEMP	SAL'TY PSU	SNDSPD m/s	SIG-T kg/m³	COND dS/m	THETA °C	SIGTH kg/m³	SVA ×108	DYNDTH DYN M
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	1.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0	32060 4.2221628262826282628262826282628262826282	7776203333333333333333333333333333333333	99990022912324014300097601697024319461234581496495187408 2222333110988887560016970243194612345814964955556788 46466335110988887760116977024319461234555556788 46464444444444444444444444444444444	24.8883 8843 24.8883 24.8883 27.3846 22.44.8893 27.7886 27.7886 27.7886 27.7886 27.7886 27.7886 27.7886 27.7886 27.7886 27.996	29.66663 09.66663 09.66663 00.66688 00.667828 00.6	4.4.2251351512271474.2251315133000.22513330000.2251331513330000.2251311.000.583730844407.0000.583730842407.0000.88383717.0000.88383717.0000.88383717.0000.88383717.0000.88383717.00000.0000.00000.00000.00000.00000.0000	22222222222222222222222222222222222222	305.8551 8551 8551 88551 88551 88551 88551 88551 88551 88551 88551 88551 88551 88551 88551 88551 88551 88551 88551 88551 88551 8851	3995284924567778990012233944456778990000000000000000000000000000000000

STA. 004 74-34.3N 009- 9.1W 08/07/90 3.1 HRS GMT, 1001 RECORDS WIND KNOTS/DIR 005/325, AIR TEMP. -0.6° C, DEN PT 99.9°C, DEPTH 3300 M

PRESS DBAR	TEMP °C	SAL'TY PSU	SNDSPD m/s	SIG-T kg/m³	COND dS/m	THETA °C	SIGTH kg/m³	SVA ×108	DYNDTH DYN M
13.00 13	1.329850 29168777228511.329850 1.3	22223333333333333333333333333333333333	34444125.423140.10431118.59540.0913.467.987.77.66667.347.297.1631.09848.844477.15446.500.09913.467.987.77.66667.347.297.1631.09848.844477.144550.09913.467.987.77.66667.347.297.1631.09848.844477.144550.09913.467.987.77.66667.347.297.1631.09848.84447.1144550.09913.467.9887.77.766667.347.297.1631.09848.8444551.1144551.1	23.98.638.0404.044.744.744.744.744.744.744.744.74	26.22033459576248 26.22038.39499.135845776248 26.2226.39499.135845776248 27.3345263.8845776248 28.39499.13588.79778 28.8999.10195 29.10195 20.10195	1.30068870517150068849849900000000000000000000000000000	233.9877747994513899451381614991599901144699375805622222222222222222222222222222222222	391.3644 9235 9235 9235 9236 9237 927 927 927 927 927 927 927 927 927 92	0.0122851460246060600000000000000000000000000000

73-56.0N 010-24.2N 08/07/90 11.0 HRS GMT, STA. 005 994 RECORDS WIND KHOTS/DIR 004/195, AIR TEMP. 1.1° C, DEN PT 0.6°C, DEPTH 3004 M **PRESS** TEMP SAL'TY SNDSPD SIG-T COND DYNDTH THETA SIGTH SVA оČС o C ×108 kg/m³ DBAR PSU m/s dS/m kg/m³ DYN M 8.0 0.753 30.099 1446.1 24.118 25.889 0.753 24.118 378.711 0.030 0.533 30.616 1445.8 24.545 26.124 0.474 31.416 1446.7 25.192 26.698 9.0 0.533 24.545 338.044 0.034 0.474 31.416 0.358 32.382 0.473 25.192 11.0 276.434 0.040 0.358 32.382 1447.4 25.976 27.350 0.015 32.848 1446.5 26.368 27.427 0.358 25.976 13.0 201.923 0.045 0.014 26.368 15.1 164.669 0.049 17.0 -0.035 33.179 1446.8 26.638 27.638 -0.036 26.638 19.0 0.013 33.473 1447.4 26.873 27.901 0.013 26.873 21.0 -0.190 33.679 1446.8 27.049 27.889 -0.191 27.049 139.062 0.052 116.777 0.054 100.078 0.056 84.724 75.155 70.560 0.058 0.060 0.061 60.130 0.063 56.035 0.064 45.286 0.066 35.634 0.068 32.000 0.069 28.478 0.071 21.115 0.073 0.075 19.085 16.516 0.077 15.671 0.079 15.542 14.752 100.0 0.080 110.1 0.082 120.0 14.029 0.083 0.276 34.836 1452.1 27.958 29.202 0.877 34.907 1455.1 27.978 29.779 0.847 34.901 1455.1 27.976 29.753 0.715 34.899 1454.7 27.982 29.642 0.637 34.896 1454.5 27.985 29.577 0.600 34.895 1454.5 27.987 29.549 0.511 34.896 1454.2 27.993 29.477 0.467 34.892 1454.2 27.992 29.441 0.454 34.897 1454.3 27.997 29.438 0.392 34.898 1454.3 28.001 29.394 130.0 0.871 27.979 12.340 0.084 0.840 27.977 0.708 27.983 140.0 12.585 0.086 150.0 11.964 0.087 11.684 160.0 0.630 27.986 0.088 0.593 27.987 0.503 27.994 170.0 11.537 0.089 180.0 10.921 0.090 0.459 27.993 0.445 27.998 0.383 28.002 0.186 28.006 190.0 10.961 0.092 200.0 10.489 0.093 34.898 1454.3 28.001 29.394 34.888 1453.7 28.005 29.227 0.392 10.108 220.1 0.095 240.0 0.1950.097 9.653 240.0 0.195 34.836 1455.7 28.005 29.227 0.186 28.006 280.0 0.216 34.894 1454.2 28.009 29.259 0.206 28.010 280.1 0.154 34.893 1454.2 28.011 29.213 0.143 28.012 300.0 0.099 34.892 1454.3 28.014 29.175 0.087 28.015 320.0 0.055 34.894 1454.4 28.017 29.147 0.042 28.018 340.0 0.037 34.893 1454.7 28.018 29.140 0.023 28.019 360.1 -0.104 34.888 1454.3 28.021 29.024 -0.118 28.022 380.0 -0.068 34.893 1454.8 28.023 29.069 -0.083 28.025 380.0 -0.068 34.893 1454.8 28.023 29.069 -0.083 28.025 380.0 -0.0116 34.891 1454.8 9.28 023 29.069 -0.083 28.025 9.300 0.099 9.063 0.100 8.760 0.102 8.385 8.319 7.909 0.104 0.106 0.107 7.669 0.109 400.0 -0.116 34.891 1454.9 23.024 29.036 -0.131 28.026 450.1 -0.276 34.884 1455.0 28.027 28.916 -0.293 28.028 500.1 -0.299 34.890 1455.7 23.033 28.923 -0.317 28.034 7.527 0.110 7.067 0.114 6.450 0.117 550.0 -0.581 34.892 1456.2 28.033 28.877 -0.401 28.039 600.0 -0.437 34.890 1456.5 28.042 28.808 -0.509 28.043 650.0 -0.563 34.890 1457.0 28.045 28.765 -0.587 28.046 5.779 0.120 5.205 0.123 4.679 0.125 700.0 -0.664 34.885 1457.3 28.046 28.697 -0.690 28.048 4.298 0.128 750.0 -0.729 34.884 1457.8 28.048 28.664 -0.756 28.050 800.0 -0.720 34.889 1458.7 28.051 28.696 -0.750 28.053 3.884 0.130 3.513 0.132 850.1 -0.746 34.890 1459.4 28.053 28.697 -0.777 28.055 0.133 3.162 2.797 900.0 -0.777 34.890 1460.1 28.055 28.693 -0.811 28.057 950.0 -0.770 34.893 1460.9 28.057 23.723 -0.806 28.059 1000.0 -0.751 34.898 1461.9 28.060 28.765 -0.790 28.062 0.135 2.527 0.136

2.181

STA. 006 73-23.7N 008-33.4W 08/07/90 19.1 HRS GMT, 1002 RECORDS WIND KNOTS/DIR 010/025, AIR TEMP. 1.1° C, DEW PT 0.6°C, DEPTH 3125 M

PRESS	TEMP	SAL'TY	SNDSPD	SIG-T	COND	THETA	SIGTH	SVA	DYNDTH
DBAR	°C	PSU	m/s	kg/m³	dS/m	°C	kg/m³	×108	DYN M
500.0 550.0 600.0 700.0 750.1 850.1 900.0 950.1	1.0222345627 -0.0001663712004057 -0.0001663712004057 -0.00000000000000000000000000000000000	24855667910894547004927323712606443429998876664431253333333333333333333333333333333333	231255714951511014620641900209802 144488899012233556544435533333322333 14444444552335565444355533333222333 1444444444444444444444444444	23.788.5713123.799588.005.70958.0023.77.5579.977.5579.977.5579.977.571.8859.99588.000.0023.77.5578.99588.000.0023.0023.0023.0023.0023.0023.002	26.1595796073881669522222222222222222222222222222222222	0.0351193 0.0351193 0.0351139354688150 0.0223954688150 0.022355679356793567935679369374 0.035679356793567935679369374 0.0366937945695277777777777777777777777777777777777	25.901 26.7008 27.0007 27.0	410.58131 5213131313131313131313131313131313131313	0.00451 0.00451 0.0015

STA. 007S 73-1.1N 009-17.1W 08/08/90 1.1 HRS GMT, 1001 RECORDS WIND KNOTS/DIR 010/040, AIR TEMP. 2.8° C, DEW PT 0.0°C, DEPTH 2820 M

	EMP SAL'TY PC PSU	SNDSPD m/s	SIG-T kg/m³	COND dS/m	THETA °C	SIGTH kg/m³	SVA ×108	DYNDTH DYN M
1.0 1.6 3.0 1.6 7.0 0 1.6 7.0 0 1.6 13.0 1.6 15.0 0 .6 17.0 0 -0.6 17.0 0 -0.6 17.0 0 -0.6 17.0 0 0	299.8126 299.81	123072797076258327204921979564201977050296418455121797970762583272049219795642019770502964184445512144551244444444444444551244455444553333333333	23.8.8.2.4.5.2.7.4.3.3.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2	26.61942 26.61942 26.61942 26.61943 26.61943 27.7447 27.7447 27.7477 2	1.97649472 9.9764724 1.9794724 1.9794724 1.9794724 1.148823327754663 1.148823337754663 1.148823337754663 1.1488247737582 1.148792 1.1487	42566384424533322853344921 822222222222222222222222222222222222	403.9741 406.763 406.763 406.763 406.763 406.763 368.0525 200.6888 1232.520 176.384 1232.520 176.384 1232.791 105.4587 116.897 116.888 116.897 116.8	0.01218 0.01218 0.01218 0.002344725 0.002344725 0.00555925 0.0055925 0.00555925 0.00555925 0.00555925 0.00555925 0.00555925 0.0055592 0.005559 0.0055592 0.0055592 0.0055592 0.005559 0.005559 0.005559 0.005559 0.005559 0.005559 0.0
1000.0 -0.7	7/2 34.902	1461.8	28.064	28.750	-0.811	28.066	1.750	0.144

STA. 008 72-24.4N 011-15.2W 08/08/90 11.0 HRS GMT, 1001 RECORDS WIND KNOTS/DIR 020/200, AIR TEMP. 0.6° C, DEW PT -0.6°C, DEPTH 1150 M

1.0 4.538 31.379 1464.2 24.854 29.930 4.538 24.854 308.648 0.0 3.0 4.524 31.371 1464.1 24.848 29.913 4.524 24.849 309.187 0.0
3.0 4.524 31.371 1464.1 24.848 29.913 4.524 24.849 309.187 0.0 5.0 4.532 31.377 1464.2 24.852 29.925 4.532 24.845 309.599 0.0 7.1 4.526 31.366 1464.2 24.844 29.911 4.525 24.845 309.599 0.0 9.0 4.572 31.394 1464.5 24.862 29.974 4.571 24.863 307.917 0.0 11.3 4.571 31.404 1464.5 24.870 29.983 4.570 24.871 307.150 0.0 11.3 0.4.608 31.688 1464.2 25.112 30.094 4.607 25.112 284.166 0.0 11.5 0.571 32.375 1448.5 25.959 27.518 0.571 25.959 203.516 0.0 11.7 0.0 0.318 32.677 1447.7 26.215 27.555 0.317 26.216 179.166 0.0 12.0 0.333 33.30 866 1468.4 26.544 27.872 0.333 26.545 147.935 0.0 12.0 0.0 0.521 33.330 1464 8.26.781 27.355 0.522 26.782 122.84 0.0 12.0 0.0 0.571 32.375 1448.5 25.712 27.555 0.522 26.782 125.785 0.0 12.0 0.0 0.716 33.3728 1444.5 27.111 27.492 0.0717 27.103 0.101.812 0.0 12.0 0.0 0.776 33.624 1444.0 27.030 27.355 0.777 27.030 11.812 0.0 12.0 0.0 0.716 33.728 1444.5 27.111 27.492 0.0717 27.112 94.997 0.0 12.0 0.0 0.503 34.23 1444.5 27.111 27.492 0.0717 27.112 94.997 0.0 13.1 0.095 33.919 1448.6 27.229 28.312 0.093 27.229 8.932 0.0 13.1 0.095 33.919 1448.6 27.259 28.312 0.093 27.259 8.93 0.0 13.1 0.095 33.913 1447.2 27.512 28.850 0.510 27.516 55.778 0.0 140.0 0.509 34.657 1452.3 27.755 29.315 0.597 27.756 25.16 55.778 0.0 140.0 0.509 34.657 1452.3 27.755 29.315 0.597 27.795 29.513 0.0 150.0 0.065 34.462 1448.9 27.675 28.856 0.067 27.795 29.513 0.0 180.0 0.811 34.775 1453.8 27.866 29.606 0.854 27.876 29.591 0.0 180.0 0.811 34.775 1453.8 27.866 29.606 0.854 27.979 29.513 0.0 180.0 0.811 34.775 1453.8 27.866 29.606 0.854 27.979 29.513 0.0 180.0 0.811 34.775 1453.8 27.866 29.606 0.855 27.949 29.513 0.0 180.0 0.811 34.775 1453.8 27.866 29.606 0.855 27.949 29.513 0.0 180.0 0.811 34.891 1455.9 27.996 30.199 1.334 27.991 17.149 0.0 180.0 0.223 34.873 1456.1 27.928 30.039 1.218 27.999 17.149 0.0 180.0 0.857 34.901 1455.9 27.996 30.199 1.334 27.991 17.149 0.0 180.0 0.001 1.223 34.873 1456.1 27.928 30.039 1.218 27.995 17.676 0.0 180.0 0.001 1.246 34.886 1456.9 27.996 30.099 1.334 27.995 17.995 17.995 17.995 17.995 17.

STA. 009 72-2.9N 012-15.4W 08/09/90 17.1 HRS GMT, 1001 RECORDS WIND KNOTS/DIR 008/040, AIR TEMP. 99.9° C, DEW PT 99.9°C, DEPTH 3050 M

727 RECORDS 72-27.8N 011-19.0N 08/09/90 22.1 HRS GMT, R 013/035, AIR TEMP. 3.9° C, DEW PT 1.1°C, WIND KNOTS/DIR 013/035, AIR TEMP. DEPTH 775 M TEMP SAL'TY SNDSPD SIG-T COND °C PSU m/s kg/m³ dS/m **PRESS** THETA SIGTH SVA DYNDTH ο̈́C o C ×108 DBAR kg/m³ DYN M 1.857 29.945 1450.8 23.932 26.606 1.718 29.967 1450.3 23.959 26.519 1.857 23.933 1.718 23.960 396.453 0.004 393.877 0.014 1.832 29.949 1450.8 23.938 26.592 1.831 23.938 395.920 5.0 0.020 5.0 1.832 29.949 1450.8 23.938 26.592 1.831 25.958 7.1 2.087 30.183 1452.2 24.108 26.978 2.087 24.108 9.0 3.797 31.350 1461.2 24.902 29.304 3.797 24.903 11.0 3.025 31.435 1458.0 25.038 28.750 3.024 25.039 13.0 0.685 32.072 1448.5 25.708 27.374 0.685 25.709 15.0 0.015 32.665 1446.3 26.220 27.289 0.014 26.221 17.1 -0.447 33.101 1444.8 26.593 27.242 -0.448 26.593 17.0 -0.572 33.247 1444.4 26.716 27.250 -0.573 26.716 21.1 -0.658 33.386 1444.2 26.832 27.284 -0.658 26.832 23.1 -0.805 33.536 1443.8 26.959 27.275 -0.805 26.959 25.0 -0.863 33.596 1443.8 26.959 27.273 -0.864 27.011 27.0 -0.923 33.815 1443.6 27.190 27.386 -0.924 27.190 379.706 0.028 304.067 0.035 291.123 0.041 227.325 0.046 178.655 0.050 143.314 131.596 0.053 0.056 120.604 0.058 108.541 0.061 103.656 0.063 27.0 -0.923 33.815 1443.6 27.190 27.386 -0.924 27.190 29.0 -0.890 33.908 1444.0 27.264 27.482 -0.891 27.265 31.0 -0.885 33.940 1444.1 27.290 27.511 -0.886 27.290 86.634 0.065 79.579 0.066 77.145 0.068 31.0 -0.885 33.940 1444.1 27.290 27.511 -0.886 27.290 35.0 -0.810 34.059 1444.6 27.383 27.663 -0.811 27.384 40.0 -0.502 34.266 1446.4 27.538 28.075 -0.504 27.538 45.0 -0.019 34.444 1449.0 27.658 28.619 -0.020 27.659 50.0 0.244 34.541 1450.4 27.722 28.918 0.242 27.722 60.1 0.722 34.649 1452.9 27.781 29.415 0.720 27.781 70.1 1.264 34.775 1455.6 27.846 29.984 1.261 27.846 80.0 1.413 34.814 1456.5 27.867 30.149 1.409 27.867 90.0 1.554 34.853 1457 4.27 888 30.308 1.550 27.867 68.305 0.071 53.701 0.074 42.335 36.360 0.076 0.078 30.850 0.081 24.823 0.084 22.925 0.087 1.554 34.853 1457.4 27.888 30.308 1.526 34.876 1457.4 27.908 30.305 1.728 34.914 1458.5 27.924 30.517 1.550 27.889 20.958 0.089 1.521 27.909 1.722 27.925 19.077 100.1 0.091 110.0 17.679 0.093 120.1 30.564 1.761 27.931 1.767 34.926 1458.9 27.930 17.167 0.094 1.643 34.925 1458.5 27.939 30.460 1.663 34.939 1458.8 27.949 30.493 1.567 34.929 1458.5 27.948 30.406 1.637 27.940 130.1 0.096 16.347 1.656 27.950 140.1 15.467 0.098 1.559 27.949 1.338 27.958 1.183 27.961 1.099 27.968 150.0 15.530 0.099 1.345 34.920 1457.7 27.957 30.210 1.191 34.911 1457.1 27.960 30.074 1.107 34.911 1456.9 27.967 30.005 0.101 160.0 14.631 170.0 14.269 0.102 180.0 13.672 0.103 13.366 1.107 34.916 1457.1 27.970 30.013 1.098 27.971 190.0 0.105 1.042 34.913 1457.0 27.972 29.959 0.840 34.905 1456.4 27.979 29.787 0.578 34.897 1455.5 27.989 29.564 1.033 27.973 0.830 27.980 200.0 13.165 0.106 220.0 12.451 0.109 11.345 240.1 0.568 27.991 0.111 0.540 34.897 1455.7 27.992 29.540 260.0 0.529 27.993 11.111 0.113 0.485 34.897 1455.7 27.995 29.502 0.445 34.904 1455.9 28.003 29.482 0.473 27.996 280.1 10.808 0.115 300.0 0.433 28.004 10.060 0.118 320.1 0.389 34.904 1456.0 28.006 29.442 0.376 28.007 9.724 0.120 34.901 1455.9 28.009 29.370 34.900 1455.9 28.012 29.322 0.297 34.901 0.231 34.900 9.358 340.0 0.283 28.011 0.121 0.217 360.0 28.014 9.023 9.123 0.154 34.898 1455.9 28.015 29.262 8.719 380.0 0.138 28.016 0.125 0.094 34.897 1455.9 28.018 29.220 -0.042 34.894 1456.1 28.022 29.123 -0.178 34.890 1456.3 28.026 29.026 400.0 8.355 0.127 0.077 28.019 450.0 -0.042 -0.06028.024 7.771 0.131 500.1 -0.178 34.890 28.027 7.231 -0.1970.135 550.0 -0.280 34.892 1456.6 28.034 28.963 -0.301 600.1 -0.276 34.898 1457.5 28.038 28.993 -0.300 28.035 6.345 0.138 5.914 5.361 28.039 0.141 650.0 -0.340 34.899 1458.0 28.042 28.962 -0.365 28.044 0.144 700.0 -0.442 34.897 1458.4 28.045 28.895 -0.469 28.047 727.0 -0.471 34.898 1458.7 28.047 28.883 -0.499 28.049 4.833 0.146

STA. DID

4.542

0.148

STA. 011 73-45.1N 007-17.4W 08/10/90 23.1 HRS GMT, 1001 RECORDS WIND KNOTS/DIR 005/020, AIR TEMP. 2.8° C, DEW PT 2.8°C, DEPTH 2576 DEPTH 2576 M **PRESS** TEMP SAL'TY SNDSPD SIG-T COND THETA SIGTH SVA DYNDTH οc °C kg/m³ x108 DBAR PSU m/s kg/m³ dS/m DYN M 4.679 30.995 1464.3 24.534 29.712 4.679 24.535 339.071 0.003 4.674 30.990 1464.3 24.531 29.705 4.676 30.993 1464.3 24.533 29.710 4.672 31.002 1464.4 24.541 29.716 4.615 31.217 1464.4 24.717 29.856 4.578 32.861 1466.4 26.025 31.244 3.1 4.674 24.532 339.371 0.011 24.534 5.1 4.676 339.183 0.017 7.0 4.672 24.541 338.505 0.024 4.614 24.718 4.577 26.025 3.945 27.035 9.1 321.714 0.031 197.360 0.036 13.0 3.946 34.048 1465.3 27.034 31.707 3.945 27.035 15.0 3.539 34.223 1463.9 27.214 31.498 3.538 27.215 17.0 3.084 34.277 1462.1 27.300 31.146 3.083 27.301 19.0 2.419 34.300 1459.3 27.377 30.587 2.418 27.377 21.1 1.424 34.301 1454.9 27.454 29.730 1.423 27.455 23.1 0.860 34.411 1452.6 27.581 29.333 0.859 27.581 25.2 0.424 34.395 1450.6 27.594 28.949 0.424 27.594 27.1 0.095 34.449 1449.2 27.656 28.711 0.094 27.656 29.0 0.000 34.510 1448.9 27.710 28.678 -0.001 27.711 31.0 0.074 34.563 1449.4 27.749 28.781 0.073 27.750 35.0 0.119 34.603 1449.4 27.779 28.851 0.117 27.779 40.0 -0.373 34.671 1447.6 27.859 28.486 -0.374 27.860 45.0 -0.603 34.702 1446.6 27.859 28.486 -0.374 27.860 50.0 -0.847 34.738 1445.6 27.859 28.486 -0.604 27.896 50.0 -0.847 34.738 1445.6 27.934 28.137 -0.849 27.935 60.1 -1.060 34.777 1444.8 27.975 27.991 -1.062 27.975 70.0 -1.169 34.796 1444.5 27.994 27.916 -1.171 27.994 80.0 -1.263 34.807 1444.2 28.006 27.859 -1.265 28.007 90.0 -1.236 34.823 1444.6 28.018 27.889 -1.239 28.019 100.1 -0.702 34.884 1447.3 28.047 28.392 -0.702 28.047 3.946 34.048 1465.3 27.034 31.707 101.597 13.0 0.038 84.566 0.040 76.397 69.136 0.042 0.043 61.728 0.045 49.740 0.046 48.476 0.047 42.569 0.048 37.408 0.049 33.738 0.049 30.944 0.050 23.280 0.052 0.053 16.109 0.054 12.193 0.055 10.348 0.056 9.129 0.057 7.942 0.058 90.0 -1.236 34.823 1444.6 28.018 27.889 -1.239 28.019
100.1 -0.702 34.884 1447.3 28.047 28.392 -0.705 28.047
110.0 -0.654 34.864 1447.7 28.028 28.422 -0.657 28.029
120.0 -0.677 34.857 1447.7 28.023 28.402 -0.681 28.024
130.1 -0.584 34.871 1448.3 28.031 28.497 -0.588 28.032
140.0 -0.731 34.865 1447.8 28.032 28.371 -0.736 28.033
150.0 -0.746 34.865 1447.9 28.033 28.363 -0.751 28.034 5.405 7.150 0.059 0.060 7.547 0.060 6.855 0.061 6.679 0.062 6.529 0.062 150.0 -0.746 34.865 1447.9 28.033 28.363 -0.751 28.034 160.0 -0.815 34.857 1447.7 28.029 28.303 -0.820 28.030 170.1 -1.019 34.850 1446.9 28.032 28.130 -1.023 28.033 180.0 -1.057 34.850 1446.9 28.034 28.102 -1.063 28.035 190.0 -1.240 34.842 1446.2 28.034 27.946 -1.245 28.035 200.1 -1.267 34.842 1446.2 28.035 27.928 -1.272 28.036 220.0 -1.284 34.842 1446.5 28.035 27.928 -1.270 28.036 240.0 -1.233 34.846 1447.0 28.035 27.923 -1.290 28.036 240.0 -1.217 34.850 1447.4 28.040 28.003 -1.224 28.040 23.00 -1.133 34.857 1448.2 28.040 28.088 -1.141 28.040 28.040 28.060 3.10 41.245 28.046 28.088 -1.141 28.043 300.1 -1.075 34.857 1448.8 28.040 28.147 -1.084 28.041 320.0 -0.994 34.868 1449.5 28.046 28.233 -1.003 28.046 340.0 -0.964 34.870 1450.0 28.047 28.269 -0.975 28.047 360.0 -0.964 34.870 1450.0 28.047 28.294 -0.958 28.047 360.0 -0.964 34.871 1450.9 28.050 28.354 -0.915 28.051 400.0 -0.963 34.877 1451.3 28.050 28.354 -0.915 28.051 400.0 -0.963 34.877 1451.3 28.050 28.354 -0.915 28.051 400.0 -0.966 34.878 1455.2 28.050 28.366 -0.959 28.051 500.0 -0.933 34.886 1456.1 28.053 28.368 -0.984 28.053 550.0 -0.966 34.878 1455.2 28.057 28.444 -0.957 28.058 650.1 -0.935 34.886 1456.1 28.058 28.473 -0.953 28.058 750.0 -0.965 34.886 1456.1 28.058 28.473 -0.953 28.058 750.0 -0.952 34.886 1456.1 28.058 28.473 -0.953 28.058 750.0 -0.952 34.886 1456.1 28.058 28.473 -0.953 28.058 750.0 -0.952 34.886 1456.1 28.058 28.473 -0.953 28.058 750.0 -0.952 34.886 1456.8 28.059 28.476 -0.977 28.060 28.060 10.079 34.886 1456.8 28.059 28.476 -0.977 28.060 28.060 10.079 34.886 1456.8 28.059 28.476 -0.977 28.060 28.060 10.079 34.886 1456.8 28.059 28.476 -0.977 28.060 10.079 34.886 1456.8 28.059 28.476 -0.977 28.060 10.079 34.886 1456.8 28.059 28.476 -0.977 28.060 10.079 34.886 1456.8 28.059 28.476 -0.977 28.060 10.079 34.886 1456.8 160.0 -0.815 34.857 1447.7 28.029 28.303 -0.820 28.030 6.856 0.063 6.474 0.064 6.233 0.064 6.080 0.065 5.945 0.065 5.832 0.067 5.615 0.068 5.325 0.069 5.111 5.249 0.070 0.071 4.771 0.072 4.646 0.073 4.520 0.074 4.306 0.075 4.262 0.076 4.048 0.078 3.737 0.080 3.465 0.081 3.097 0.083 2.892 0.085 2.649 0.086 750.0 -0.952 34.886 2.400 1456.8 28.059 28.476 -0.977 28.060 0.087 1457.5 28.060 28.475 -1.007 28.062 1458.2 28.061 28.486 -1.023 28.063 800.1 -0.979 34.886 2.077 0.088 850.0 -0.993 34.887 1.802 0.089 900.1 -1.024 34.886 1458.9 28.062 28.481 -1.056 28.064 950.0 -1.038 34.887 1459.7 28.063 28.491 -1.072 28.064 1000.0 -1.056 34.887 1460.4 28.064 28.498 -1.092 28.066 1.520 0.090 1.265 0.091 0.977 0.091

74- 2.5N 006-12.5N 08/11/90 3.0 HRS GMT, 1000 RECORDS STA. 012 WIND KNOTS/DIR 003/090, AIR TEMP. 2.80 C, DEN PT 2.20C, **DEPTH 3450 M** TEMP SAL'TY SNDSPD SIG-T PRESS COND THETA SIGTH SVA DYNDTH DBAR PSU kg/m³ ٥Ĉ kg/m³ ×108 m/s dS/m DYN M 4.894 31.691 1466.0 25.064 30.494 4.902 31.690 1466.1 25.062 30.501 4.883 31.741 1466.1 25.104 30.530 4.894 25.065 288.635 0.003 4.902 25.063 4.883 25.105 3.7 288.808 0.011 5.1 284.844 0.015 7.1 4.750 32.078 1466.0 25.386 30.712 4.749 25.386 258.060 0.020 4.313 32.832 1465.2 26.030 30.992 2.048 33.671 1456.7 26.903 29.759 9.0 4.312 26.030 196.871 0.025 1456.7 26.903 29.759 2.048 26.903 1454.6 27.092 29.446 1.504 27.092 1452.9 27.323 29.264 1.058 27.324 1451.5 27.503 29.094 0.682 27.503 1451.5 27.573 29.117 0.633 27.573 1450.4 27.639 28.946 0.375 27.639 1449.9 27.697 28.875 0.236 27.697 1449.2 27.722 28.759 0.080 27.722 1448.0 27.783 28.547 ~0.221 27.784 1447.9 27.832 28.552 ~0.266 27.833 1447.2 27.845 28.438 ~0.409 27.846 1447.9 27.895 28.583 ~0.300 27.895 1448.5 27.920 28.693 ~0.206 27.920 2.048 26.903 114.017 0.028 1.505 33.857 0.030 96.077 1.059 34.107 0.683 34.301 0.634 34.384 15.0 0.031 74.111 57.098 0.033 19.0 50.486 0.034 0.376 34.447 0.237 34.509 44.221 38.726 21.0 0.035 0.237 34.509 0.081 34.530 23.0 0.036 36.345 25.0 0.036 27.0 -0.220 34.587 30.483 0.037 29.0 -0.265 34.644 31.0 -0.408 34.652 25.877 0.038 24.611 0.038 35.0 -0.299 34.720 19.915 0.039 40.0 -0.204 34.756 45.0 -0.379 34.788 1448.5 27.920 28.693 -0.206 27.920 1447.8 27.954 28.570 -0.381 27.954 17.592 0.040 14.328 0.041 50.0 -0.266 34.800 1448.4 27.958 28.678 -0.267 27.959 13.913 0.041 1448.4 27.958 28.678 -0.267 27.959
1448.5 27.983 28.681 -0.296 27.984
1449.2 27.989 28.800 -0.175 27.989
1449.8 27.996 28.880 -0.099 27.997
1449.1 28.000 28.734 -0.270 28.000
1449.7 28.009 28.816 -0.194 28.010
1450.2 28.009 28.898 -0.109 28.010
1450.4 28.014 28.912 -0.104 28.015 11.554 60.0 -0.294 34.829 0.043 70.1 -0.172 34.844 80.1 -0.096 34.858 11.042 0.044 10.342 0.045 90.0 -0.267 9.956 34.851 0.046 100.0 -0.190 34.868 9.099 0.047 110.1 -0.105 34.873 9.098 0.048 1450.4 28.014 28.912 -0.104 28.015 1449.7 28.014 28.753 -0.285 28.014 1449.9 28.022 28.771 -0.279 28.023 1450.1 28.021 28.767 -0.288 28.021 120.0 -0.100 34.880 8.600 0.049 8.602 7.774 130.1 -0.281 34.868 140.0 -0.274 34.879 0.050 0.050 150.0 -0.282 34.876 7.925 0.051 1450.1 28.022 28.743 -0.322 28.023 1450.1 28.023 28.713 -0.361 28.024 1450.1 28.026 28.688 -0.397 28.026 160.0 -0.316 34.876 170.0 -0.355 34.875 0.052 7.732 7.664 0.053 180.1 -0.390 34.876 7.363 0.053 190.0 -0.393 34.877 200.0 -0.389 34.879 220.0 -0.500 34.876 1450.2 28.027 28.692 -0.399 28.028 1450.4 28.028 28.701 -0.395 28.029 1450.2 28.031 28.613 -0.507 28.032 7.239 0.054 7.121 0.055 6.744 0.056 240.0 -0.524 34.877 1450.4 28.033 28.603 -0.532 28.034 260.0 -0.748 34.867 1449.7 28.035 28.414 -0.756 28.036 280.0 -0.997 34.844 1448.8 28.026 28.195 -1.005 28.027 300.0 -1.248 34.841 1447.9 28.033 27.989 -1.256 28.034 6.524 0.058 $6.1\bar{3}1$ 0.059 6.703 0.060 300.0 -1.248 34.841 1447.9 28.033 27.989 -1.256 28.034 320.0 -1.284 34.842 1448.1 28.036 27.969 -1.292 28.037 340.2 -1.213 34.848 1448.8 28.038 28.042 -1.223 28.039 360.0 -0.982 34.865 1450.2 28.043 28.260 -0.993 28.044 380.0 -0.915 34.869 1450.9 28.044 28.328 -0.927 28.045 400.2 -0.910 34.873 1451.2 28.046 28.344 -0.923 28.047 450.1 -0.868 34.877 1452.2 28.048 28.406 -0.882 28.049 500.0 -0.910 34.877 1452.9 28.049 28.392 -0.926 28.051 550.1 -0.892 34.880 1453.8 28.051 28.433 -0.910 28.052 600.0 -0.859 34.884 1454.7 28.053 28.486 -0.879 28.055 650.0 -0.882 34.884 1455.5 28.055 28.489 -0.905 28.056 700.0 -0.903 34.887 1457.0 28.055 28.489 -0.927 28.057 750.3 -0.913 34.887 1457.0 28.058 28.551 -0.955 28.062 5.754 0.061 5.413 0.062 5.189 0.063 4.898 0.064 4.855 0.065 4.563 0.066 4.309 0.068 4.002 0.071 3.754 0.072 3.473 0.074 3.189 0.076 2.895 0.077 2.585 0.079 800.0 -0.927 34.889 1457.7 28.060 28.521 -0.955 28.062 2.170 0.080 850.1 -0.965 850.1 -0.965 34.887 1458.4 28.060 28.510 -0.995 28.062 900.0 -0.961 34.889 1459.2 28.061 28.536 -0.993 28.063 1.994 0.081 1.757 0.082

1.477

1.016

0.083

0.083

950.0 -0.985 34.888 1459.9 28.062 28.538 -1.019 28.064

1000.0 -0.981 34.893 1460.8 28.066 28.566 -1.018 28.068

STA. 013 74-21.1N 005- 3.9N 08/11/90 6.1 HRS GMT, 1001 RECORDS WIND KNOTS/DIR 002/155, AIR TEMP. 3.9° C, DEN PT 1.1°C, DEPTH 3525 M

PRESS DBAR	TEMP °C	SAL'TY PSU	SNDSPD m/s	SIG-T kg∕m³	COND dS/m	THETA °C	SIGTH kg/m³	SVA ×108	HTDNYD M NYD
1.01.01.00.00.10.00.10.00.11.00.00.00.11.00.00	3551233572442277779952838999154231666117788997715029973345517778889000097881623738421760011311111111111111111111111111111111	11.8803333333333333333333333333333333333	0879832117714035826902087661936831984096533342230553393363 655723455566777778888999988888776555544444455556678890 64444455556677778888999988888776555544444455556678890 644444455555555555444444555556678890 64444455555556677890 644444555555555554444445555556678890 6444444444444444444444444444444444444	25.113838 1471233839 25.113838 1471233839 25.113838 147123 14876	33333333333333333333333333333333333333	4.7768356023411.00.77683556234410.899736417.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.	22222222222222222222222222222222222222	280.443155 8837469 8837469 8837469 8837469 8837469 88374689 9727688.7.36809 972768809 972768809 972768809 972768809 972768809 972768809 972768809 972768809 97	0.01193456677888999001123346889112334667780122222222222233333333333344444444455555680135668912588088899912
1000.0	0.717	J4.071	1401.1	28.061	20.01/	-0.956	20.003	1.585	0.093

STA. 014S 74-41.4N 003-51.0W 08/11/90 11.0 HRS GMT, 1001 RECORDS WIND KNOTS/DIR 002/050, AIR TEMP. 5.0° C, DEN PT 4.4°C, DEPTH 3650 M

PRESS TEMP DBAR °C	SAL'TY PSU	SNDSPD m/s	SIG-T kg/m³	COND dS/m	THETA °C	SIGTH kg/m³	SVA ×108	DYNDTH DYN M
1.0 5.101 3.4 5.094 7.0 5.0765 11.0 4.784 17.0 1.989 19.0 0.473 21.0 0.473 221.0 0.471 40.0 0.255 35.1 0.471 40.0 0.516 70.0 0.516 70.0 0.516 70.0 0.516 70.0 0.516 70.0 0.516 70.0 0.125 35.1 0.	78175576618314778351124777360360360343623285362017782577408886562222222222333333333333333333333333	77777848132240641340991298969171987965453631105628567777778468132240641340991298969171987965453631105628556777777784813224064134099129896917198796545556778966666666666666666666666666666666	25.525.5323 25.525.5323 25.525.6929 25.525.6929 26.7555 225.66.923 227.34987 227.38808 227.38808 227.38808 227.38808 227.38808 227.38808 227.38808 227.38808 227.38808 227.38808 227.38808 227.39900	31.195 31.195 31.195 31.181	1994546337942223140990535768877295555555555555555555555555555555555	23634343110666356555555555555555555555555555555	x1001333339 101333339 101333339 101333339 101333339 101333339 101333339 10133339 10133339 10133339 10133339 10133339 1013339 1013339 101339 10	M 282772716913567891234557801234 0001722333344444444455780123456789012457891233468803568012334 00000000000000000000000000000000000
1000.0 -0.995	34.00/	1460.7	20.002	20.330	-1.032	20.004	1.343	0.105

STA. 014D 74-41.8N 003-51.3N 08/11/90 11.1 HRS GMT, 1002 RECORDS WIND KNOTS/DIR 002/050, AIR TEMP. 5.0° C, DEN PT 4.4°C, DEPTH 3650 M

PRESS DBAR	TEMP °C	SAL'TY PSU	SNDSPD m/s	SIG-T kg∕m³	COND dS∕m	THETA °C	SIGTH kg/m³	SVA ×108	DYNDTH DYN M
DBAR 1000.0 1050.1 1100.0 1200.0 1200.0 1350.0 1350.0 1450.0 1550.0 1750.0	-0.9901 -1.0099 -1.0099 -1.0137 -1.03392 -1.03352 -1.034457 -1.035517 -1.035517 -1.0359 -1.0429 -1.0425 -1.0425 -1.0222 -1.0222 -1.0222 -1.0222 -1.0222 -1.0222 -1.0222	PSU 888899912222222173344.88889999122222222177881119446.8888999912222222222177888888999912222222222	m/s 1461.53 1462.329 14663.3214663.14665.32 14664.53 146667.09 146690.13 14477.1477.1477.1477.1477.1477.1477.147	kg/m³ 28.061 28.065 28.065 28.065 28.065 28.0667 28.0667 28.067 28.067 28.067 28.0667 28.0666 28.0666 28.0666 28.0666 28.0666 28.0666 28.0666 28.0669 28.0669 28.0688 28.0688	d5/m 28.5567 28.5619 28.5619 28.6619 28.6645 28.6645 28.6645 28.7759 28.7759 28.87759 28.8835 28.8835 28.8835 28.8835 28.8835 28.8835 28.8835 28.995 29.0079 29.1148 29.1148	-1.027 -1.040 -1.050 -1.053 -1.063 -1.067 -1.093 -1.097 -1.093 -1.099 -1.111 -1.121 -1.132 -1.136 -1.132 -1.126 -1.129 -1.129 -1.129 -1.126 -1.135 -1.135 -1.150	K9/m ³ 28.0645 28.0666 28.0666 28.0667 28.0668 28.0668 28.0670 28.070 28.0770 28.0770 28.0770 28.0770 28.0770 28.0771 28.0771 28.0771 28.0774 28.0774	x108 1.41699 1.41699 0.7549145 0.1275491 -0.2551369 -0.137563 -0.1347963 -0.1347963 -1.4671305 -1.477908645 -1.477908645 -1.477908645 -1.22233333 -222333333	
2650.1 2700.0 2750.0	-1.029 -1.030 -1.033	34.894 34.893 34.893 34.894	1488.3 1489.2 1490.0 1490.9	28.068 28.068 28.068 28.068	29.204 29.221 29.239 29.259	-1.164 -1.169 -1.174 -1.178	28.074 28.073 28.074 28.074	-3.811 -3.838 -4.038	-0.024 -0.026 -0.028 -0.030
2900.1 2950.0	-1.034 -1.033	34.893 34.893 34.893	1491.7 1492.6	28.067 28.068 28.067	29.275 29.295 29.314	-1.184 -1.187	28.074 28.074 28.074	-4.413 -4.517	-0.032 -0.034 -0.036 -0.039

STA. 015S 75- 0.8N 002-33.9W 08/11/90 16.1 HRS GMT, 1000 RECORDS WIND KNOTS/DIR 005/090, AIR TEMP. 5.6° C, DEN PT 4.4°C, DEPTH 3700 M

PRESS DBAR	TEMP °C	SAL'TY PSU	SNDSPD m/s	SIG-T kg/m³	COND dS∕m	THETA °C	SIGTH kg/m³	SVA ×108	DYNDTH DYN M
1.000000000000000000000000000000000000	9472929109423087365555.0098697910942300873655555.023697910942330873873577955.0236979617942300873655555555555555556792111111111111111111111111111111111111	33333333333333333333333333333333333333	911113860041810616401986708760924888398317137453074185208 66886575592067666534343344545556788 444665755920076665343433445455567788 444645545556788 444645556788 44464444444444444444445556788 445556788 445556788 445556788	25.7785 77.785 77.785 77.795 255.77990 255.77990 255.77990 255.77990 257.7990 267.7990 267.777.8816 277.777.8816 277.777.8816 277.777.8816 277.9988.0015 288.0026 288.00336 270.0446 288.0046 288.0046 288.0049 288.0049 288.0049 288.0049 288.0049 288.0049 288.0049 288.0049 288.0049 288.0049 288.0049 288.0049	31.48480200022237.7506544620405731.30.0524417.7505541662531222222222222222222222222222222222	5.09497 5.09818312996186379608755.098789961355.09868799910.365542.33996088312292.3665846277855.00.3657966877965.3332733414479267.3332733414477.11.21.21.21.21.21.21.21.21.21.21.21.21.	222465286528667641688777777777777777777777777777777	118535400013379066043727946654234536565689710336479556709594809333367707666649991533655656853199887777766664991555555555656853199888777776666655555555555568853093	001160356790011223333456789011234445667890112222223333333333333344444444444444444
1000.0	-1.0/3	34.000	1400.3	20.063	20.401	~1.111	20.003	0.946	0.072

STA. 015D 75- 0.5N 002-30.9N 08/11/90 17.1 HRS GMT, 1001 RECORDS WIND KNOTS/DIR 005/030, AIR TEMP. 5.6° C, DEW PT 4.4°C, DEPTH 3700 M

STA. 016S 74-59.5N 000-44.5W 08/11/90 22.1 HRS GMT, 1001 RECORDS WIND KNOTS/DIR 010/045, AIR TEMP. 5.6° C, DEW PT 5.6°C, DEPTH 3750 M

STA. 016D 74-59.8N 000-44.3W 08/11/90 23.0 HRS GMT, 1002 RECORDS WIND KNOTS/DIR 010/045, AIR TEMP. 5.6° C, DEN PT 5.6°C, DEPTH 3750 M

$\begin{array}{c} 1000.0 & -1.049 & 34.890 & 1460.5 & 28.066 & 28.506 & -1.085 & 28.068 & 0.813 & 0.000 \\ 1050.1 & -1.064 & 34.888 & 1461.2 & 28.065 & 28.514 & -1.102 & 28.067 & 0.471 & 0.001 \\ 1150.0 & -1.073 & 34.888 & 1462.0 & 28.065 & 28.528 & -1.1124 & 28.067 & 0.471 & 0.001 \\ 1250.1 & -1.080 & 34.888 & 1462.8 & 28.065 & 28.565 & -1.123 & 28.068 & 0.507 & 0.001 \\ 1250.1 & -1.075 & 34.889 & 1464.5 & 28.066 & 28.566 & -1.124 & 28.068 & -0.041 & 0.001 \\ 1250.1 & -1.075 & 34.889 & 1464.5 & 28.066 & 28.566 & -1.124 & 28.068 & -0.041 & 0.001 \\ 1300.0 & -1.074 & 34.890 & 1465.3 & 28.067 & 28.615 & -1.124 & 28.069 & -0.247 & 0.001 \\ 1350.1 & -1.077 & 34.891 & 1467.0 & 28.068 & 28.633 & -1.130 & 28.070 & -0.667 & 0.001 \\ 1400.1 & -1.077 & 34.891 & 1467.0 & 28.068 & 28.678 & -1.132 & 28.070 & -0.598 & 0.000 \\ 1450.0 & -1.075 & 34.891 & 1467.8 & 28.068 & 28.700 & -1.135 & 28.071 & -0.988 & 0.000 \\ 1550.0 & -1.072 & 34.892 & 1468.7 & 28.069 & 28.700 & -1.135 & 28.071 & -0.988 & 0.000 \\ 1550.0 & -1.072 & 34.892 & 1469.5 & 28.068 & 28.723 & -1.136 & 28.071 & -0.988 & 0.000 \\ 1650.1 & -1.073 & 34.893 & 1471.2 & 28.069 & 28.766 & -1.140 & 28.072 & -1.366 & -0.001 \\ 1650.1 & -1.065 & 34.894 & 1472.9 & 28.069 & 28.766 & -1.140 & 28.073 & -1.603 & -0.003 \\ 1750.0 & -1.065 & 34.894 & 1472.9 & 28.070 & 28.814 & -1.140 & 28.073 & -1.603 & -0.003 \\ 1850.1 & -1.065 & 34.894 & 1473.7 & 28.070 & 28.834 & -1.143 & 28.074 & -2.202 & -0.006 \\ 1900.0 & -1.061 & 34.895 & 1476.4 & 28.070 & 28.834 & -1.143 & 28.075 & -2.632 & -0.001 \\ 2050.0 & -1.056 & 34.897 & 1477.2 & 28.070 & 28.834 & -1.146 & 28.074 & -2.202 & -0.006 \\ 1900.0 & -1.061 & 34.895 & 1476.3 & 28.070 & 28.899 & -1.155 & 28.076 & -2.584 & -0.009 \\ 2050.0 & -1.064 & 34.897 & 1479.7 & 28.071 & 28.989 & -1.155 & 28.076 & -2.584 & -0.009 \\ 2050.0 & -1.064 & 34.897 & 1488.4 & 28.072 & 29.012 & -1.157 & 28.076 & -2.262 & -0.013 \\ 2250.1 & -1.046 & 34.897 & 1488.4 & 28.072 & 29.015 & -1.166 & 28.077 & -3.6619 & -0.027 \\ 2450.0 & -1.046 & 34.897 & 1488.5 & 28.071 & 29.074 & -1.166 & 28.077 & -$	PRESS	TEMP	SAL'TY	SNDSPD	SIG-T	COND	THETA	SIGTH	SVA	DYI.DTH
	DBAR	C	PSU	m/s	kg⁄m³	dS/m	°C	kg/m³	×108	DYN M
	1000.0 11050.1 1100.0 1150.1 1250.1 1350.0 1350.0 1350.0 11450.0 1500.0 1500.0 11650.0 11660.0	-1.044 -1.075 -1.0777 -1.0777 -1.0777 -1.0775 -1.0775 -1.0775 -1.075 -1.0655 -1.0655 -1.0655 -1.0550 -1.0448 -1.0448 -1.0448 -1.0448 -1.0448 -1.0448 -1.0448	3333444.8888899911122233344444.8888889991112223334444.8888889991112223334444.88888899999999999999999999999999	1461.20861.462.861.4661.4662.861.4662.861.4663.1081.4665.14665.14665.14665.14665.14665.14665.14671.20.97.6643.14767.14767.147767.881.14788.14885	28.066 28.065 28.065 28.066 28.066 28.066 28.066 28.067 28.068 28.069 28.069 28.070 28.070 28.070 28.071 28.071 28.072	28.5148 28.5128 28.5128 28.51334 28.51334 28.51334 28.6703 28.6703 28.7746 28.7746 28.7746 28.8770 28.8770 28.8770 28.970 28.970 28.970 28.970 28.970 29.1133 29.1170 29.1224 29.229 29.229 29.229 29.229 29.229 29.229 29.229 29.229 29.229	-1.085 -1.102 -1.114 -1.123 -1.124 -1.130 -1.133 -1.135 -1.136 -1.140 -1.1440 -1.1445 -1.145 -1.155 -1.155 -1.157 -1.160 -1.174 -1.174 -1.174 -1.179 -1.183 -1.191 -1.191 -1.197 -1.201	28.068 28.067 28.068 28.069 28.070 28.070 28.071 28.071 28.071 28.073 28.073 28.0777 28.0777 28.0777 28.0777 28.0777 28.0777 28.0777 28.0777 28.07777 28.07777 28.07777 28.07777 28.07777 28.07777 28.07777 28.077777 28.07777 28.077777 28.077777 28.0777777777777777777777777777777777777	0.6471 0.64777 0.64777 0.102477 0.102467888661 0.0.24678888661 0.0.25768887 0.0.334361 0.0.2358399827 0.0.334604 0.1.7992 0.1.35839 0.1.24171 0.1.24171 0.1.24171 0.1.35839 0.1.24171 0.1.	0.000 0.0001 0.0001 0.0001 0.0001 0.0000 0.0000 -0.00004 -0.0006 -

STA. 017S 74-45.4N 000-23.4W 08/12/90 3.1 HRS GMT, 1000 RECORDS WIND KNOTS/DIR 022/030, AIR TEMP. 6.1° C, DEW PT 5.6°C, DEPTH 3464 M

PRESS DBAR	TEMP °C	SAL'TY PSU	SNDSPD m/s	SIG-T kg/m³	COND dS/m	THETA °C	SIGTH kg/m³	SVA ×108	DYNDTH DYN M
DB 2357.0011000000000000000000000000000000000	0 2768225163334947777661141424515015555555555555555555555555555	PSU 55688811805567814989556888888888888888888888888888888888	m 114772228.7.4826857.921.60942344444444444444444444444444444444444	kg/m 411630 26.444360 4444360 4444360 4444360 444360 444360 444360 444360 4455336 4444360 4455336 4444360 47306 47	d 222.99484747679580474909219212222222222222222222222222222222	0 C	x 22121212121212121212121212121212121212	x10* 56142073658 7.82142073658 7.821420736683772668377266836939 157.856.62223.1566.859994 157.856.62223.1566.8223919.88289994 157.856.86223.1566.8223919.88289994 16.5214472111.988.877.7966.9973.98286438640.88289999999999999999999999999999999999	M 3558114702334566777789900234456777899000000000000000000000000000000000
900.0 950.0 1000.0	-1.077	34.885 34.885 34.885	1459.5	28.062 28.063 28.063	28.456	-1.091 -1.111 -1.115	28.064 28.065	1.423 1.174 0.984	0.065 0.066 0.066

STA. 017D 74-45.6N 000-22.7H 08/12/90 4.1 HRS GMT, 998 RECORDS WIND KNOTS/DIR 022/030, AIR TEMP. 6.1° C, DEW PT 5.6°C, DEPTH 3464 M **PRESS** TEMP SAL'TY SNDSPD SIG-T COND THETA SIGTH DYNDTH SVA x108 kg∕m³ O C DBAR ŌС PSU dS/m kg/m³ m/s DYN M 1007.0 -1.084 34.887 1460.4 28.064 28.477 -1.120 28.066 1050.1 -1.083 34.887 1461.1 28.065 28.497 -1.121 28.067 1100.0 -1.087 34.887 1461.9 28.065 28.515 -1.127 28.067 0.808 0.000 0.650 0.000 1461.9 28.065 28.515 -1.127 28.067 1462.8 28.065 28.539 -1.128 28.068 1463.6 28.065 28.560 -1.131 28.068 0.509 0.001 1150.1 -1.085 34.888 0.001 0.287 1200.0 -1.086 34.888 0.134 0.001 1250.1 -1.087 34.888 1464.4 28.066 28.580 -1.135 28.068 -0.058 0.001 1300.0 -1.085 34.889 1465.3 28.066 28.604 -1.135 28.069 1350.0 -1.083 34.889 1466.1 28.066 28.627 -1.136 28.069 1400.1 -1.081 34.889 1467.0 28.067 28.650 -1.136 28.069 -0.218 0.001 -0.3600.001 -0.539 0.000 1450.0 -1.077 34.891 1467.8 28.067 28.676 -1.135 28.070 1500.1 -1.078 34.890 1468.6 28.067 28.695 -1.139 28.070 1550.0 -1.076 34.891 1469.5 28.067 28.718 -1.140 28.070 -0.738 0.000 -0.856 0.000 -1.028 -0.001 1550.0 -1.076 34.891 1469.5 28.067 28.718 -1.140 28.070 1600.1 -1.073 34.892 1470.3 28.069 28.743 -1.139 28.072 1650.0 -1.071 34.893 1471.2 28.069 28.766 -1.140 28.072 1700.1 -1.070 34.893 1472.0 28.069 28.788 -1.142 28.072 1750.1 -1.069 34.894 1472.9 28.070 28.810 -1.144 28.073 1800.0 -1.068 34.895 1473.7 28.071 28.832 -1.146 28.074 1850.1 -1.066 34.894 1474.6 28.070 28.854 -1.147 28.073 1900 1 -1.065 34.895 1475.6 28.070 28.856 -1.147 28.073 -1.264 - 0.001-1.409 - 0.002-1.593 - 0.003-1.780 -0.004-1.982 -0.004-2.027 -0.005 1900.1 -1.065 34.895 1475.4 28.070 28.876 -1.148 28.074 -2.202 -0.006 1950.1 -1.062 34.895 1476.3 28.070 28.898 -1.149 28.074 2000.5 -1.058 34.896 1477.2 28.071 28.923 -1.148 28.075 2050.0 -1.056 34.896 1478.0 28.071 28.945 -1.149 28.075 -2.318 -0.008 -2.502 -0.009 2050.0 -1.056 34.896 1478.0 28.071 28.945 -1.149 28.075 2100.0 -1.053 34.896 1478.9 28.071 28.968 -1.150 28.075 2150.1 -1.051 34.897 1479.7 28.071 28.990 -1.151 28.076 2200.0 -1.048 34.897 1480.6 28.071 29.013 -1.151 28.076 2250.1 -1.048 34.897 1481.4 28.071 29.033 -1.155 28.076 2300.0 -1.047 34.898 1482.3 28.072 29.054 -1.157 28.077 2350.1 -1.047 34.897 1483.1 28.072 29.073 -1.160 28.076 2400.1 -1.047 34.898 1484.0 28.072 29.093 -1.164 28.077 2450.1 -1.047 34.898 1484.8 28.072 29.093 -1.167 28.077 2500.0 -1.048 34.897 1485.7 28.072 29.132 -1.172 28.077 2500.0 -1.049 34.897 1485.7 28.072 29.132 -1.172 28.077 2650.1 -1.050 34.897 1487.4 28.072 29.188 -1.184 28.077 2700.0 -1.049 34.897 1488.2 28.072 29.188 -1.184 28.077 2750.1 -1.050 34.897 1489.1 28.071 29.208 -1.187 28.077 2750.1 -1.050 34.897 1489.1 28.071 29.208 -1.187 28.077 2750.1 -1.050 34.897 1489.9 28.071 29.227 -1.191 28.077 -2.643 - 0.010-2.776 -0.011 -2.915 -0.013 -3.020 -0.014-3.160 - 0.016-3.342 - 0.018-3.452 - 0.019-3.614 - 0.021-3.745 -0.023 -3.856 - 0.025-3.956 -0.027 -4.136 -0.029 -4.282 -0.031 -4.339 - 0.0331489.9 28.071 29.227 -1.191 28.077 1490.8 28.072 29.246 -1.196 28.078 1491.7 28.071 29.265 -1.198 28.078 2750.1 -1.050 34.897 -4.502 - 0.0352800.0 -1.050 -4.643 - 0.03734.897 2850.1 -1.049 34.897 -4.744 - 0.0402900.1 -1.049 34.896 1492.5 28.071 29.285 -1.202 28.077 2950.1 -1.047 34.896 1493.4 28.071 29.305 -1.204 28.077 3000.0 -1.046 34.897 1494.2 28.071 29.324 -1.207 28.078 -4.841 -0.042 -4.950 -0.045 -5.081 - 0.047

STA. 018S 74-26.5N 001-39.7N 08/12/90 8.1 HRS GMT, 1000 RECORDS WIND KNOTS/DIR 020/010, AIR TEMP. 6.7° C, DEW PT 4.4°C, DEPTH 3700 M

STA. 018D 74-26.3N 001-39.7W 08/12/90 9.1 HRS GMT, 1001 RECORDS WIND KNOTS/DIR 020/020, AIR TEMP. 6.7° C, DEW PT 4.4°C, DEPTH 3700 M

1050.1 -1.084 34.887 1461.1 28.065 28.496 -1.122 28.066 0.671 0.000	PRESS	TEMP	SAL'TY	SNDSPD	SIG-T	COND	THETA	SIGTH	SVA	DYNDTH
	DBAR	°C	PSU	m/s	kg/m³	dS/m	°C	kg/m³	×108	DYN M
2750.1 -1.048 34.897 1489.9 28.071 29.229 -1.189 28.077 -4.462 -0.035 2800.1 -1.047 34.897 1490.8 28.071 29.248 -1.193 28.077 -4.601 -0.038 2850.1 -1.048 34.897 1491.7 28.072 29.267 -1.197 28.078 -4.755 -0.040 2900.1 -1.048 34.897 1492.5 28.071 29.286 -1.201 28.078 -4.851 -0.042	1002.0 1050.1 1100.0 1150.1 1250.1 1250.1 1350.1 1450.1 1450.1 1550.1 1450.1 11750.1 11750.1 11750.1 11750.1 11750.1 11750.1 12200.1 12200.1 12200.1 12200.1 12200.1 122250.1 122250.1 122250.1 122250.1 122250.1 122250.1 122250.1 122250.1 122250.1 122250.1	-1.0844 -1.09932 -1.09932 -1.0985 -1.09753 -1.07753 -1.0776 -1.0773 -1.0776 -1.0775 -1.0776 -1	33333333333333333333333333333333333333	1461.97644.31 1461.97644.31 1462.66.87 14664.31 146667.87 146667.87 146667.14767.8 147767.8 1	28.065 28.065 28.066 28.066 28.066 28.066 28.066 28.066 28.066 28.066 28.067 28.070 28.070 28.071 28.071 28.072	28.496 28.4908 28.4908 28.5533 228.55762 28.6676 28.6678 28.67748 28.8133 28.87748 28.87748 28.879249 28.879249 28.99249 28.99249 29.11791 29.1299 29.1299 29.2299 29.	-1.105 -1.122 -1.134 -1.135 -1.139 -1.138 -1.141 -1.137 -1.139 -1.143 -1.144 -1.143 -1.144 -1.145 -1.147 -1.150 -1.150 -1.158 -1.160 -1.174 -1.182 -1.188 -1.189 -1.197 -1.201	28.066 28.066 28.0668 28.0668 28.0668 28.0668 28.0670 28.0771 28.0772 28.0771 28.0775 28.0776 28.07777 28.0777777777777777777777777777777777777	0.6502 0.6502 0.05262 -0.25588 -0.25588 -0.25588 -0.25588 -0.25588 -0.25588 -0.25588 -0.25588 -0.2558 -1.3557 -1.3557 -1.3557 -1.3557 -1.3557 -1.3557 -1.3557 -1.3557 -2.3557 -2.3557 -2.3557 -2.3557 -2.3557 -2.3557 -2.3557 -2.3557 -2.3557 -2.3557 -2.3557 -2.3557 -2.3557 -2.3557 -2.3557 -3.5578 -3.5578 -4.6755 -4.6755 -4.6755 -4.6755 -4.6755 -4.6755	0.000 0.000 0.001 0.001 0.001 0.001 0.001 0.000 0.000 -0.001

STA. 019S 74-8.7N 003-0.7W 08/12/90 14.1 HRS GMT, 1000 RECORDS WIND KNOTS/DIR 009/015, AIR TEMP. 7.2° C, DEW PT 6.7°C, DEPTH 3700 M

STA. 019D 74-8.7N 003-0.6W 08/12/90 15.1 HRS GMT, 1002 RECORDS WIND KNOTS/DIR 010/020, AIR TEMP. 7.2° C, DEN PT 6.7°C, DEPTH 3700 M

$ \begin{array}{c} 1000.0 & -1.030 & 34.890 & 1460.5 & 28.065 & 28.522 & -1.066 & 28.067 \\ 1050.1 & -1.050 & 34.888 & 1461.3 & 28.064 & 28.526 & -1.088 & 28.066 \\ 1150.1 & -1.077 & 34.887 & 1462.0 & 28.065 & 28.524 & -1.117 & 28.067 \\ 1200.0 & -1.088 & 34.887 & 1462.8 & 28.065 & 28.549 & -1.116 & 28.067 \\ 1200.0 & -1.088 & 34.887 & 1463.6 & 28.065 & 28.558 & -1.133 & 28.068 \\ 1250.1 & -1.083 & 34.888 & 1464.4 & 28.066 & 28.658 & -1.133 & 28.068 \\ 1350.1 & -1.078 & 34.888 & 1466.1 & 28.066 & 28.605 & -1.133 & 28.068 \\ 1350.1 & -1.083 & 34.889 & 1466.1 & 28.066 & 28.605 & -1.133 & 28.068 \\ 1400.1 & -1.083 & 34.889 & 1467.0 & 28.067 & 28.649 & -1.138 & 28.069 \\ 1400.1 & -1.081 & 34.889 & 1467.8 & 28.066 & 28.672 & -1.138 & 28.069 \\ 1550.1 & -1.081 & 34.889 & 1467.8 & 28.066 & 28.672 & -1.138 & 28.069 \\ 1550.1 & -1.083 & 34.890 & 1468.6 & 28.067 & 28.694 & -1.140 & 28.069 \\ 1550.1 & -1.083 & 34.890 & 1469.5 & 28.067 & 28.715 & -1.143 & 28.070 \\ 1500.1 & -1.070 & 34.890 & 1469.5 & 28.067 & 28.715 & -1.143 & 28.070 \\ 1650.0 & -1.068 & 34.892 & 1471.2 & 28.068 & 28.743 & -1.137 & 28.071 & -1.093 & -0.001 \\ 1700.1 & -1.070 & 34.892 & 1472.0 & 28.068 & 28.787 & -1.142 & 28.071 & -1.497 & -0.002 \\ 1850.1 & -1.064 & 34.893 & 1472.0 & 28.069 & 28.830 & -1.142 & 28.072 & -1.678 & -0.003 \\ 1850.1 & -1.064 & 34.894 & 1474.6 & 28.070 & 28.879 & -1.145 & 28.073 & -2.131 & -0.006 \\ 1950.1 & -1.053 & 34.894 & 1475.4 & 28.070 & 28.897 & -1.145 & 28.074 & -2.272 & -0.007 \\ 2000.1 & -1.053 & 34.896 & 1478.9 & 28.071 & 28.992 & -1.145 & 28.074 & -2.272 & -0.007 \\ 2000.1 & -1.053 & 34.896 & 1478.9 & 28.071 & 29.035 & -1.152 & 28.076 & -3.142 & -0.015 \\ 2550.1 & -1.045 & 34.897 & 1481.4 & 28.071 & 29.035 & -1.152 & 28.076 & -3.555 & -0.020 \\ 2450.0 & -1.044 & 34.897 & 1482.3 & 28.071 & 29.035 & -1.152 & 28.076 & -3.555 & -0.020 \\ 2450.0 & -1.044 & 34.897 & 1488.3 & 28.072 & 29.136 & -1.164 & 28.077 & -3.834 & -0.024 \\ 2550.1 & -1.045 & 34.898 & 1485.7 & 28.072 & 29.136 & -1.164 & 28.077 & -3.834 & -0.024 \\ 2450.0 & -1.044 & 34.897 & 1488.3 & 28.0$
2550.1 -1.045 34.897 1486.5 28.071 29.153 -1.172 28.076 -3.909 -0.026 2600.0 -1.047 34.897 1487.4 28.071 29.172 -1.177 28.077 -4.089 -0.028 2650.1 -1.047 34.897 1488.2 28.072 29.191 -1.182 28.077 -4.246 -0.030 2750.1 -1.049 34.897 1489.9 28.072 29.209 -1.186 28.078 -4.415 -0.032 2750.1 -1.049 34.897 1489.9 28.072 29.228 -1.191 28.078 -4.528 -0.034 28.00.0 -1.048 34.897 1490.8 28.072 29.247 -1.194 28.078 -4.528 -0.037 2850.0 -1.048 34.897 1491.7 28.072 29.266 -1.197 28.078 -4.759 -0.039 2900.1 -1.048 34.897 1492.5 28.071 29.285 -1.201 28.078 -4.857 -0.041 2950.1 -1.047 34.897 1493.4 28.071 29.305 -1.204 28.078 -4.991 -0.044 3000.0 -1.046 34.897 1494.2 28.071 29.324 -1.207 28.078 -5.081 -0.046

1

STA. 020S 73-48.5N 004- 6.9N 08/12/90 20.0 HRS GMT, 1000 RECORDS WIND KNOTS/DIR 008/025, AIR TEMP. 6.1° C, DEW PT 5.0°C, DEPTH 3363 M

2. 0 5.737 32.045 1469.9 25.249 31.511 5.37 25.250 271.024 0.005 3. 0 5.722 32.119 1470.0 25.310 31.565 5.722 25.310 26.525 0.008 3. 1 5.721 32.207 1470.1 25.380 31.643 5.720 25.380 228.6667 0.014 7. 0 5.724 32.223 1470.1 25.380 31.643 5.720 25.380 228.67.542 0.014 9. 1 5.662 32.264 1470.0 25.319 23.1.661 5.724 25.392 253.7.541 0.024 11.2 4.648 33.661 14661.5 26.718 31.31.645 5.641 25.432 253.7.541 0.024 11.2 4.648 33.550 14661.5 26.711 30.635 31.806 26.711 12.299 0.031 15. 0 2.351 33.757 1455.8 27.001 29.622 1.790 27.902 111.299 0.031 17. 0 1.791 33.769 1455.8 27.001 29.622 1.790 27.903 111.299 0.034 17. 0 1.791 33.769 1455.8 27.193 28.379 0.213 27.194 86.391 0.036 19. 0 0.214 33.883 1448.9 27.193 28.379 0.213 27.194 86.391 0.036 23. 1 1.503 34.351 1425.8 27.492 29.839 0.213 27.194 86.391 0.036 23. 1 1.503 34.351 1452.8 27.492 29.839 1.500 27.493 58.177 0.036 23. 1 1.503 34.351 1452.8 27.492 50.148 1.792 27.533 54.404 0.042 23. 0 1.503 34.351 1455.2 27.652 29.853 1.500 27.493 58.177 0.042 27. 0 1.798 34.433 1456.9 27.792 50.188 1.797 27.533 54.404 0.043 35. 0 0.697 34.621 1455.2 27.655 29.852 1.790 27.600 44.261 0.043 35. 0 0.697 34.621 1448.2 27.899 88.8 1.350 27.604 44.261 0.043 35. 0 0.697 34.621 1448.2 27.899 88.8 1.350 27.604 44.261 0.049 45. 0 0.277 34.752 1447.9 27.925 88.500 -0.239 27.830 26.121 0.049 50. 0 -0.371 34.752 1447.9 27.925 88.500 -0.239 27.830 26.121 0.049 50. 0 -0.371 34.752 1447.9 27.925 88.500 -0.239 27.830 26.121 0.049 50. 0 -0.371 34.752 1447.9 27.925 88.500 -0.239 27.800 44.261 0.049 50. 0 -0.371 34.752 1447.9 27.925 88.500 -0.239 27.800 49.925 17.765 0.059 50. 1 -0.603 34.858 1448.1 28.009 28.800 -0.239 27.800 49.900 0.055 50. 1 -0.732 34.866 1448.2 27.896 88.500 -0.239 27.800 49.900 0.055 50. 1 -0.732 34.866 1448.2 27.896 88.500 -0.239 27.800 49.900 0.055 50. 1 -0.732 34.866 1448.2 27.896 88.500 -0.239 27.800 49.900 0.055 50. 1 -0.963 34.865 1448.2 28.020 88.500 -0.953 28.000 9.950 0.055 50. 1 -0.963 34.866 1448.2 28.020 28.8	PRESS TEM	P SAL'TY	SNDSPD	SIG-T	COND	THETA	SIGTH	SVA	DYNDTH
	DBAR °C	PSU	m/s	kg∕m³	dS/m	°C	kg/m³	×108	DYN M
950.0 -0.972 34.889 1460.0 28.062 28.549 -1.007 28.064 1.481 0.089 1000.0 -0.995 34.890 1460.7 28.064 28.552 -1.032 28.066 1.141 0.089	3.1	214287114519846277771202100289494427573562424614383512792 33333333333333333333333333333333333	0120152898499214229418501240125370479836936086431097630444444444444444444444444444444444444	25.349111113522222222222222222222222222222222	311.6461532279990.184926333333333333333333333333333333333333	5.722417608722041760887443599355555555555555555555555555555555	255.33338 310022222222222222222222222222222222222	265.267 267 267 267 267 267 267 267 267 267	0.00112233456801123345788902334567778900112233333444444444455555555555566666666666

STA. 020D 73-46.7N 004-6.7N 08/12/90 20.1 HRS GMT, 1001 RECORDS WIND KNOTS/DIR 008/025, AIR TEMP. 6.1° C, DEW PT 5.0°C, DEPTH 3363 M

STA. 021S 73-27.7N 005- 8.5N 08/13/90 1.1 HRS GMT, 1000 RECORDS WIND KNOTS/DIR 012/330, AIR TEMP. 6.7° C, DEW PT 6.7°C, DEPTH 3080 M

3.0 4.244 30.328 1461.6 24.049 28.788 4.244 20.099 385, 368	0.012074900.0039900.0055578900.00500.0055578900.00500.0055578900.005000.005000.005000.005000.00500.00500.00500.00500.00500.00500.00500.00500.00500.0050000.005000.005000.005000.005000.005000.005000.005000.005000.0050000.0050000.0050000.0050000.0050000.005000000

STA. 021D 73-27.6N 005- 9.6N 08/13/90 2.0 HRS GMT, 987 RECORDS WIND KNOTS/DIR 012/340, AIR TEMP. 6.7° C, DEW PT 6.7°C, **DEFTH 3080 M** DYNDTH PRESS TEMP SAL'TY SNDSPD SIG-T COND THETA SIGTH SVA DBAR PSU kg/m^3 °C kg/m³ ×108 DYN M m/s dS/m 1.851 0.000 1.537 0.001 1.253 0.002 1150.1 -0.844 34.902 1463.9 28.067 28.754 -0.889 28.069 0.940 0.002 1200.0 -0.859 34.902 1464.7 28.068 28.763 -0.906 28.070 1250.1 -0.863 34.902 1465.5 28.068 28.781 -0.913 28.071 1300.1 -0.873 34.902 1466.3 28.069 28.794 -0.925 28.071 0.697 0.002 0.003 0.534 0.320 0.003 1300.1 -0.873 34.902 1466.3 28.069 28.794 -0.925 28.071 1350.0 -0.893 34.903 1467.0 28.070 28.799 -0.947 28.072 1400.1 -0.926 34.900 1467.7 28.069 28.790 -0.983 28.072 1450.1 -0.931 34.901 1468.5 28.070 28.807 -0.990 28.073 1500.1 -0.974 34.897 1469.1 28.068 28.788 -1.036 28.071 1550.0 -0.969 34.899 1470.0 28.070 28.815 -1.034 28.073 1600.1 -0.974 34.898 1470.8 28.069 28.832 -1.041 28.073 1650.1 -0.977 34.899 1471.6 28.071 28.851 -1.047 28.074 1750.0 -0.968 34.900 1472.5 28.071 28.873 -1.049 28.074 1750.0 -0.968 34.901 1473.4 28.072 28.902 -1.044 28.075 1800.0 -0.977 34.901 1474.2 28.072 28.915 -1.056 28.076 1850.1 -0.971 34.902 1475.0 28.072 28.915 -1.053 28.076 0.026 0.003 -0.171 0.003 -0.3790.003 -0.522 0.003 -0.783 0.002 -0.895 0.002 -1.1470.001 -1.314 0.001 -1.4710.000 -1.672 -0.001 1850.1 -0.971 34.902 1475.0 28.072 28.941 -1.053 28.076 1900.0 -0.974 34.903 1475.9 28.074 28.959 -1.059 28.078 1950.1 -0.984 34.902 1476.7 28.073 28.970 -1.072 28.077 -1.789 - 0.002-2.056 -0.002 -2.174 -0.004 2000.1 -0.980 34.904 1477.5 28.074 28.996 -1.071 28.078 2050.0 -0.981 34.904 1478.4 28.074 29.014 -1.075 28.078 2100.0 -0.977 34.904 1479.2 28.075 29.038 -1.075 28.079 2150.0 -0.973 34.905 1480.1 28.075 29.062 -1.074 28.080 -2.397 -0.005 -2.506 -0.006 -2.654 -0.007 -2.809 -0.008 2200.0 -0.984 34.903 1480.9 28.074 29.072 -1.074 28.079 2250.0 -0.979 34.904 1481.8 28.075 29.097 -1.087 28.079 2300.1 -0.975 34.905 1482.6 28.075 29.121 -1.086 28.080 -2.894 - 0.010-3.043 - 0.011-3.210 -0.013 2350.0 -0.985 34.905 1482.6 28.075 29.121 -1.086 28.080 2350.0 -0.985 34.904 1483.4 28.075 29.132 -1.099 28.080 2400.1 -0.992 34.903 1484.3 28.074 29.144 -1.110 28.079 2450.0 -1.004 34.902 1485.0 28.074 29.153 -1.124 28.079 2550.0 -1.014 34.901 1435.8 28.073 29.163 -1.138 28.078 2550.1 -1.023 34.899 1486.7 28.072 29.174 -1.151 28.078 2600.0 -1.031 34.898 1487.5 28.072 29.186 -1.162 28.077 2650.1 -1.036 34.898 1488.3 28.071 29.201 -1.170 28.077 2700 0 -1 039 36.897 1488.3 28.071 29.201 -1.170 28.077 -3.362 -0.015 -3.482 -0.016 -3.604 -0.018 -3.754 -0.020 -3.890 -0.022 -4.022 -0.024 -4.142 -0.026 2700.0 -1.039 34.897 1489.1 28.071 29.217 -1.177 28.077 2750.1 -1.043 34.896 1490.0 28.071 29.232 -1.185 28.076 2800.0 -1.048 34.896 1490.8 28.070 29.246 -1.194 28.076 2850.0 -1.049 34.895 1491.7 28.070 29.246 -1.198 28.076 -4.275 -0.028 -4.373 -0.030 -4.518 - 0.032-4.626 -0.035 2900.1 -1.050 34.895 1492.5 28.070 29.282 -1.203 28.076 2950.1 -1.051 34.895 1493.4 28.070 29.300 -1.208 28.076 2971.0 -1.053 34.895 1493.7 28.070 29.306 -1.212 28.077 -4.771 - 0.037-4.864 - 0.039-4.978 -0.040

STA. 022S 73-6.7N 006-18.8W 08/13/90 6.1 HRS GMT, 1000 RECORDS WIND KNOTS/DIR 015/065, AIR TEMP. 7.2° C, DEW PT 5.0°C, DEPTH 2700 M

PRESS DBAR	TEMP °C	SAL'TY PSU	SNDSPD m/s	SIG-T kg/m³	COND dS/m	THETA °C	SIGTH kg/m³	SVA ×108	DYNDTH DYN M
DBAR 000001001000010010000110000110000110000110000	5.11470484477491946737365162498467740497900.00000000000000000000000000000	2222035557646669923199999999999999999999999999999999	m 446665349655.07994782566660235848844777789870000274938 1146665349655.079947825666602358333333334444444444444444444444444444	kg-4424444444444444444444444444444444444	dS/m 65544 30.054481204669255322030.77928.77928.1351040330.77928.7790330.77928.13510404969255322288.13511469239.7756594453315172277.665649259.775669259.775669259.775669259.775669259.775669259.775669259.775669259.775669259.775669259.775669259.775669259.775669259.775669259.775669259.775669259.775669259.775669259.775669259.77576699999.7756694459799.77576699999.7756694459799.77576699999.7756699999.7756699999.7756699999.7756699999.7756699999.7756699999.7756699999.7756699999.7756699999.77566999999.77566999999.77566999999.77566999999.77566999999.775669999999.77566999999999.775669999999.775669999999999	0 1978	# 4255443198866605844037654003162971629719886099469719886097777777777777777777777777777777777		DYN 0718 0.0118 0.0118 0.00336 0.00336 0.005556 0.00505556 0.00505556 0.00777789 0.0088867913 0.00905
950.0 1000.0	-0.716	34.907	1461.4 1462.0	28.065	28.801	-0.710 -0.755		2.118 1.794	0.125 0.126

STA. 022D 73-6.8N 006-18.8W 08/13/90 7.1 HRS GMT, WIND KNOTS/DIR 015/065, AIR TEMP. 7.2° C, DEW PT 5.0°C, 7.1 HRS GMT, 801 RECORDS DEPTH 2700 M TEMP SAL'TY SNDSPD SIG-T OC PSU m/s kg/m3 PRESS COND THETA SIGTH SVA DYNDTH ٥C ×108 DBAR dS/m kg/m³ DYN M 1000.0 -0.694 34.908 1462.1 28.066 28.821 -0.733 28.068 1.817 0.000 1050.0 -0.722 34.908 1462.8 28.066 28.818 -0.763 1100.0 -0.757 34.907 1463.5 28.067 28.810 -0.800 28.069 1.567 0.001 1.279 28.070 0.002 1150.1 -0.773 34.909 1464.3 28.070 28.819 -0.819 28.072 0.920 0.002 1250.1 -0.775 34.908 1464.3 26.070 28.819 -0.819 26.072 1250.1 -0.822 34 907 1465.7 28.070 28.819 -0.872 28.073 1300.1 -0.846 34.906 1466.4 28.071 28.820 -0.898 28.073 1350.0 -0.865 34.905 1467.2 28.071 28.824 -0.920 28.073 1400.0 -0.871 34.906 1468.0 28.072 28.841 -0.929 28.075 1450.0 -0.889 34.905 1468.7 28.072 28.841 -0.955 28.075 1450.0 -0.889 36.005 1468.7 28.072 28.858 -0.962 28.075 0.003 0.723 0.498 0.003 0.228 0.003 0.064 0.003 -0.2020.003 0.003 -0.427 1500.0 -0.899 34.905 1469.5 28.072 28.858 -0.962 28.075 1550.0 -0.913 34.905 1470.3 28.072 28.867 -0.978 28.075 1600.1 -0.916 34.906 1471.1 28.073 28.886 -0.984 28.077 -0.576 0.003 0.002 -0.759-1.000 1650.0 -0.933 34.904 1471.9 28.072 28.892 -1.004 28.076 1700.0 -0.932 34.906 1472.7 28.074 28.915 -1.006 28.078 1750.0 -0.934 34.906 1473.5 28.074 28.933 -1.011 28.077 -1.1010.001 -1.4030.001 -1.4931750.0 -0.934 34.906 1473.5 28.074 28.933 -1.011 28.077 1800.2 -0.929 34.907 1474.4 28.075 28.959 -1.009 28.079 1850.1 -0.931 34.908 1475.2 28.076 28.979 -1.014 28.079 1900.1 -0.928 34.909 1476.1 28.076 29.003 -1.014 28.080 2000.1 -0.940 34.908 1476.9 28.076 29.012 -1.029 28.080 2000.1 -0.942 34.909 1477.7 28.077 29.031 -1.034 28.081 2050.1 -0.946 34.908 1478.5 28.076 29.047 -1.041 28.080 2100.0 -0.952 34.907 1479.4 28.076 29.062 -1.050 28.080 2150.0 -0.957 34.908 1480.2 28.076 29.078 -1.059 28.081 2200.1 -0.965 34.906 1481.0 28.076 29.090 -1.070 28.080 2250.1 -0.972 34.906 1481.0 28.076 29.090 -1.080 28.081 2300.0 -0.979 34.905 1482.6 28.076 29.117 -1.090 28.080 0.000 -1.692 - 0.001-1.879 -0.002 -2.063 -0.003 -2.247 -0.004 -2.412 -0.005 -2.490 -0.006 -2.653 - 0.007-2.826 - 0.009-2.946 -0.010 -3.117 -0.012 2300.0 -0.979 34.905 1482.6 28.075 29.117 -1.090 28.080 2350.0 -0.987 34.904 1483.4 28.075 29.130 -1.101 28.079 2400.0 -0.997 34.903 1484.2 28.074 29.140 -1.115 28.079 -3.216 - 0.013-3.328 - 0.015-3.499 - 0.01728.079 2450.0 -1.011 34.901 1485.0 28.073 29.147 -1.132 -3.643 - 0.0182500.0 -1.031 34.899 1485.8 28.073 29.148 -1.155 28.078 2550.0 -1.041 34.897 1486.6 28.072 29.157 -1.168 28.077 2600.0 -1.047 34.898 1487.4 28.072 29.172 -1.178 28.078 -3.838 -0.020 -3.935 - 0.022-4.149 -0.024

72-41.8N 007-26.3W 08/13/90 13.1 HRS GMT, 1000 RECORDS STA. 023S WIND KNOTS/DIR 018/010, AIR TEMP. 9.4° C, DEW PT 8.9°C, DEPTH 2845 M TEMP SAL'TY SNDSPD SIG-T **PRESS** COND THETA SIGTH SVA DYNDTH ×108 kg/m^3 DBAR PSU dS/m ٥C kg/m³ m/s DYN M 5.654 31.756 1469.2 25.031 31.185 5.652 31.758 1469.3 25.032 31.185 5.573 31.788 1469.0 25.065 31.147 5.654 25.031 291.801 0.006 5.652 25.033 5.573 25.066 5.507 25.091 3.1 291.685 0.009

 5.1
 5.62
 31.788
 1469.0
 25.062
 31.189
 5.573
 32.066

 7.0
 5.507
 31.811
 1468.8
 25.091
 31.240
 5.573
 25.091

 9.4
 5.333
 32.765
 1456.7
 26.156
 29.262
 2.322
 26.157

 13.0
 1.576
 33.870
 1454.9
 27.097
 29.517
 1.576
 27.098

 15.2
 0.642
 33.452
 1450.2
 26.822
 28.406
 0.642
 26.949

 19.0
 0.860
 33.625
 1451.4
 26.948
 28.722
 0.859
 26.949

 19.0
 0.087
 33.855
 1448.3
 27.177
 28.251
 0.086
 27.177

 21.1
 0.041
 33.809
 1445.0
 27.272
 27.698
 -0.646
 27.374

 27.0
 -0.631
 34.057
 1445.3
 27.374
 27.805
 -0.632
 27.374

 27.0
 -0.588
 34.203
 1445.9
 27.490
 27.968
 -0.562
 27.702

 29.1
 -0.568
 34.277
 1446.4
 27.546
 5.1 288.547 0.015 5.507 31.811 1468.8 25.091 31.113 7.0 286.135 0.020 260.981 0.027 184.845 0.031 95.530 0.034 121.626 0.036 109.666 87.952 0.038 0.040 91.216 0.042 78.898 0.044 69.230 61.118 0.045 0.047 58.250 0.048 52.951 0.049 45.118 0.051 38.178 0.053 30.778 0.055 28.716 0.056 22.524 0.059 19.468 17.400 0.061 0.063 16.081 0.064 100.0 14.699 0.066 110.0 13.996 13.216 0.067 120.0 0.069 130.0 12.831 0.070 140.1 12.712 12.359 0.071 150.0 0.072 160.0 11.988 0.074 11.745 170.0 0.075 11.400 180.0 0.076 190.0 11.073 0.077 200.1 10.953 0.078 220.0 10.619 0.080

240.1

260.0

10.251

9.787

9.543

8.995

8.778

1.925

0.083

0.085

0.086

0.088

0.090

0.092

0.123

STA. 023D 72-41.7N 007-26.5W 08/13/90 13.1 HRS GMT, 776 RECORDS WIND KNOTS/DIR 018/010, AIR TEMP. 9.4° C, DEN PT 8.9°C, DEPTH 2845 M

PRESS	TEMP	SAL'TY	SNDSPD	SIG-T	dS/m	THETA	SIGTH	SVA	DYN'DTH
DBAR	°C	PSU	m/s	kg/m³		°C	kg/m³	×108	DYN M
1055.0 1050.1 1150.1 1200.0 1350.0 1350.0 14500.0 1550.1 1600.0 17500.1 1850.1 1850.1 1950.1 12250.1 22500.1 22500.1 22500.1 22550.0 22550.0	-0.975 -0.979 -0.983 -0.985	34.9005 9077 9076 9077 9005 9005 9005 9005 9005 9005 9005	1462.4 1462.4 1462.4 1464.8 14665.3 14667.8 14667.8 14667.8 14667.8 14770.7 14771.5 14771.5 14771.5 14771.5 14771.5 14771.6 14	28.076 28.077 28.077 28.076 28.076 28.075 28.075 28.075 28.075 28.074 28.074 28.074 28.074 28.073	28.820 28.8086 28.792 28.789 28.789 28.789 28.789 28.818 28.818 28.858 28.868 28.868 28.919 28.919 28.919 28.919 28.919 28.919 28.919 28.919 29.0046 29.0046 29.1139 29.1139 29.1139 29.1164 29.1164 29.1164	-0.737 -0.737 -0.878 -0.878 -0.924 -0.930 -0.980 -0.987 -1.024 -1.032 -1.044 -1.055 -1.067 -1.074 -1.080 -1.080 -1.118 -1.134 -1.138 -1.141 -1.142 -1.164	28.067 28.069 28.070 28.070 28.072 28.075 28.075 28.075 28.077 28.077 28.077 28.077 28.077 28.077 28.077 28.077 28.079 28.080 28.080 28.080 28.080 28.079	1.849 1.5297 0.615 0.615 0.3617 -0.35379 -1.2262 -1.2648 -1.7696 -1.2648 -1.7696 -1.2787 -1.2868 -1.7696 -1.2968 -1.3976 -1.3088 -1.30	0.000 0.001 0.002 0.002 0.003 0.003 0.003 0.003 0.002 0.0001 0.0001 -0.0001 -0.003 -0.005 -0.0013 -0.0014 -0.0018 -0.0014 -0.0018 -0.0014 -0.0018

STA. 024 72-10.8N 008-29.6W 08/13/90 18.1 HRS GMT, 1000 RECORDS WIND KNOTS/DIR 030/000, AIR TEMP. 6.1° C, DEW PT 3.9°C, DEPTH 2600 M

STA. 025 71-52.6N 009-40.0W 08/13/90 23.1 HRS GMT, 994 RECORDS WIND KNOTS/DIR 030/340, AIR TEMP. 5.6° C, DEW PT 5.6°C, DEPTH 2475 M

STA. 026 71-27.8N 010-47.8W 08/14/90 3.1 HRS GMT, 999 RECORDS WIND KNOTS/DIR 014/040, AIR TEMP. 5.0° C, DEW PT 4.4°C, **DEPTH 1820 M PRESS** TEMP SAL'TY SNDSPD SIG-T COND THETA SIGTH SVA DYNDTH оC o C x108 kg/m³ DBAR PSU m/s dS/m kg/m³ DYN M 2.535 31.237 1455.5 24.919 28.189 2.535 24.919 0.009 3.0 302.481 2.538 31.246 1455.6 24.926 28.200 2.531 31.241 1455.6 24.922 28.190 2.488 31.409 1455.6 25.060 28.295 2.538 24.926 5.2 301.814 0.016 7.0 2.531 31.241 1455.6 24.922 28.190
2.488 31.409 1455.6 25.060 28.295
2.636 32.436 1457.6 25.868 29.255
3.265 33.609 1461.9 26.750 30.751
2.985 33.723 1460.9 26.867 30.605
2.855 33.809 1460.5 26.947 30.564
2.742 33.866 1460.1 27.002 30.515
2.753 33.921 1460.2 27.045 30.569
2.813 34.027 1460.7 27.125 30.709
2.837 34.042 1460.8 27.135 30.743
2.957 34.115 1461.5 27.182 30.907
2.898 34.161 1461.3 27.224 30.895
2.642 34.283 1460.4 27.344 30.773
2.282 34.320 1459.0 27.404 30.491
2.084 34.295 1458.1 27.399 30.302
1.283 31.410 1454.8 27.551 29.705
1.070 34.437 1454.0 27.588 29.546
0.365 34.507 1451.1 27.688 29.000
0.265 34.581 1450.9 27.753 28.975
0.683 34.707 1453.1 27.830 29.435
1.184 34.794 1455.6 27.867 29.939
0.573 34.791 1453.1 27.830 29.435
1.184 34.794 1455.6 27.867 29.939
0.573 34.869 1454.9 27.955 29.552
0.718 34.864 1454.9 27.955 29.552
0.718 34.869 1454.9 27.954 29.669
0.713 34.869 1454.9 27.955 29.622 2.531 24.922 302.182 0.021 9.1 2.488 25.060 289.047 0.027 11.1 2.636 25.869 212.179 0.033 3.265 26.751 2.985 26.868 128.522 117.434 0.036 13.0 15.0 0.038 17.0 2.854 26.948 109.847 0.040 2.741 27.003 2.751 27.045 2.812 27.125 19.2 104.607 0.043 100.599 21.0 0.044 23.0 93.052 0.046 2.836 27.135 25.0 92.117 0.048 2.956 27.183 2.897 27.225 2.640 27.345 27.0 87.637 0.050 29.0 83.660 0.052 31.1 0.053 72.275 35.1 2.280 27.405 66.625 0.056 2.082 27.400 1.281 27.552 67.057 52.620 40.1 0.059 45.1 0.062 1.261 27.532 1.068 27.589 0.363 27.688 0.262 27.754 50.0 49.126 0.065 39.586 33.376 60.1 0.069 70.0 0.073 0.679 27.831 1.179 27.886 0.569 27.905 0.663 27.917 0.687 27.925 0.713 27.939 80.0 26.192 0.076 22.863 19.176 90.1 0.078 100.3 0.080 18.077 110.1 0.082 0.084 120.0 17.331 130.1 16.115 0.086 0.604 27.952 140.0 14.817 0.087 0.767 27.955 0.706 27.959 0.710 27.963 0.773 34.869 1454.9 27.954 29.669 0.713 34.869 1454.8 27.959 29.622 0.718 34.874 1455.0 27.962 29.635 150.0 14.621 0.089 14.213 13.859 160.0 0.090 170.1 0.091 0.747 34.881 1455.3 27.966 29.670 0.808 34.889 1455.7 27.968 29.733 0.746 34.888 1455.6 27.971 29.683 180.1 13.574 13.394 0.093 0.739 27.967 0.799 27.969 0.738 27.972 190.0 0.094 13.097 200.0 0.746 34.888 1455.6 27.971 29.683 0.672 34.886 1455.6 27.975 29.627 0.600 34.892 1455.6 27.984 29.579 0.571 34.897 1455.8 27.990 29.566 0.496 34.896 1455.8 27.994 29.510 0.476 34.898 1456.0 27.996 29.504 0.387 34.895 1455.9 27.999 29.434 0.361 34.898 1456.1 28.003 29.422 0.324 34.900 1456.3 28.007 29.401 0.222 34.897 1456.2 28.010 29.320 0.190 34.889 1456.4 28.013 29.302 0.036 34.889 1456.4 28.014 29.186 0.095 220.1 0.663 27.976 12.765 0.098 0.590 27.995 0.590 27.995 0.560 27.995 0.484 27.995 0.464 27.998 0.374 28.000 0.347 28.004 240.0 11.863 0.101 11.333 10.923 260.0 0.103 0.105 280.1 10.691 300.0 0.107 320.0 10.401 0.109 0.111 340.0 10.017 360.0 0.309 28.008 9.646 0.113 380.1 0.206 28.011 0.173 28.014 9.226 0.115 400.0 0.190 34.897 1456.3 28.013 29.302 0.173 28.014 450.0 0.036 34.889 1456.4 28.014 29.186 0.018 28.016 500.0 -0.021 34.894 1457.0 28.022 29.164 -0.041 28.023 550.1 -0.075 34.895 1457.6 28.025 29.141 -0.097 28.027 600.1 -0.172 34.896 1458.0 28.031 29.080 -0.196 28.032 650.1 -0.230 34.900 1458.5 28.037 29.056 -0.256 28.039 700.0 -0.279 34.902 1459.1 28.041 29.039 -0.307 28.043 750.3 -0.329 34.903 1459.7 28.044 29.018 -0.359 28.046 800.1 -0.401 34.902 1460.2 28.047 28.978 -0.433 28.049 850.0 -0.450 34.904 1460.8 28.051 28.960 -0.483 28.053 900.1 -0.488 34.905 1461.5 28.055 28.937 -0.524 28.055 950.0 -0.531 34.907 1462.1 28.057 28.937 -0.569 28.059 1000.0 -0.541 34.909 1462.9 28.059 28.951 -0.582 28.061 400.0 8.975 0.117 8.622 0.121 7.864 0.125 7.458 0.129 6.735 0.133 6.014 0.136 5.497 0.139 5.041 0.142 4.583 0.144 4.060 0.146 3.670 0.148 3.137 0.150 1000.0 -0.541 34.909 1462.9 28.059 28.951 -0.582 28.061 2.844 0.151

STA. 027 71- 0.8N 012- 0.4W 08/14/90 10.1 HRS GMT, 852 RECORDS WIND KNOTS/DIR 021/355, AIR TEMP. 7.2° C, DEW PT 6.1°C, DEPTH 900 M TEMP SAL'TY SNDSPD °C PSU m/s SIG-T COND THETA SIGTH SVA DYNDTH kg/m³ dS/m ×108 °C kg/m³ DBAR m/s DYN M 5.189 34.593 1470.9 27.330 33.269 5.191 34.593 1471.0 27.330 33.272 5.189 27.331 5.191 27.330 73.463 73.515 0.001 0.003 5.193 34.593 1471.0 27.329 33.274 5.193 34.592 1471.1 27.329 33.275 5.189 34.593 1471.1 27.330 33.273 5.191 34.592 1471.1 27.329 33.273 5.193 27.330 73.571 0.004 0.005 73.629 73.580 0.007 73.662 0.008 73.384 0.010 73.574 0.011 0.013 73.917 0.014 73.657 0.015 73.634 0.017 58.166 0.018 55.725 0.019 48.990 0.020 41.026 0.021 36.632 0.023 33.606 0.025 29.363 0.026 27.167 0.028 24.988 0.030 20.088 0.032 18.472 0.034 18.005 0.036 16.973 0.038 16.288 0.040 14.916 0.041 0.043 13.888 13.613 0.044 13.189 0.045 12.296 0.047 12.180 0.048 11.579 0.049 11.372 0.050 10.923 0.051 10.613 0.053 10.401 0.055 0.057 9.776 9.621 0.059 9.158 0.061 8.814 0.063 0.065 8.643 8.104 0.067 7.930 0.068 0.070 7.683 7.182 0.073 6.354 0.077 5.804 0.080 5.442 0.083 4.911 0.085 700.0 -0.438 34.904 1458.4 28.050 28.904 -0.465 28.052 1459.0 28.053 28.884 -0.517 28.055 4.319 0.088 750.0 -0.488 34.904 3.916 0.090 800.1 -0.559 34.905 1459.5 28.057 28.846 -0.590 28.059 850.0 -0.597 34.906 1460.1 28.060 28.836 -0.630 28.062 34.905 3.269 0.091 2.902 0.093 851.0 -0.597 34.907 1460.1 28.060 28.837 -0.630 28.062 2.842 0.093

STA. 028S 71-20.7N 009- 4.3W 08/14/90 18.1 HRS GMT, 1000 RECORDS WIND KNOTS/DIR 005/050, AIR TEMP. 7.2° C, DEN PT 6.1°C, DEPTH 2200 DEPTH 2200 M **PRESS** TEMP SAL'TY SNDSPD COND DYNDTH SIG-T THETA SIGTH SVA DBAR PSU kg/m^3 ٥C x108 m/s dS/m kg/m³ DYN M 5.800 33.510 1472.0 26.400 32.864 5.800 26.400 161.696 0.003 5.781 33.509 1472.0 26.401 32.847 5.732 33.515 1471.8 26.412 32.810 3.0 5.781 26.401 5.731 26.413 161.609 0.005 5.1 160.565 0.008 7.1 5.598 33.564 1471.4 26.467 32.737 5.598 26.467 155.399 0.011 5.598 33.564 1471.4 26.467 32.737 5.598 26.467 5.496 33.626 1471.1 26.528 32.703 5.495 26.529 5.108 33.603 1469.5 26.555 32.343 5.107 26.556 1.749 33.860 1455.7 27.077 29.657 1.748 27.078 1.230 33.979 1453.5 27.209 29.309 1.230 27.209 1.083 34.129 1453.1 27.339 29.301 1.082 27.339 0.488 34.171 1450.5 27.409 28.829 0.487 27.410 0.232 34.212 1449.4 27.457 28.645 0.231 27.458 -0.078 34.255 1448.1 27.508 28.417 -0.079 27.509 0.031 34.365 1448.8 27.591 28.592 0.031 27.592 0.355 34.448 1450.4 27.640 28.932 0.354 27.641 149.577 0.014 0.017 13.1 97.468 0.020 15.1 84.955 0.022 17.0 72.646 0.023 65.930 0.025 61.369 0.026 56.530 48.702 -0.0780.027 25.1 0.031 34.365 1448.8 27.591 28.592 0.031 27.592 27.0 0.355 34.448 1450.4 27.640 28.932 0.354 27.641 29.0 0.399 34.469 1450.7 27.655 28.986 0.398 27.656 31.0 0.233 34.489 1450.0 27.681 28.861 0.232 27.681 35.0 0.065 34.520 1449.3 27.715 28.743 0.064 27.716 40.1 -0.150 34.562 1448.5 27.760 28.594 -0.151 27.761 45.0 -0.183 34.593 1448.4 27.787 28.591 -0.184 27.787 50.0 -0.189 34.603 1448.5 27.795 28.596 -0.191 27.796 60.0 -0.145 34.654 1448.9 27.834 28.676 -0.148 27.835 70.1 0.355 34.750 1451.5 27.884 29.181 0.353 27.885 80.0 0.214 34.777 1451.1 27.914 29.085 0.211 27.915 90.1 0.456 34.810 1452.4 27.927 29.323 0.452 27.928 100.1 0.774 34.844 1454.0 27.935 29.628 0.770 27.936 120.1 0.969 34.876 1455.1 27.947 29.826 0.964 27.948 120.1 0.646 34.857 1453.8 27.953 29.536 0.641 27.954 130.1 0.850 34.883 1454.9 27.961 29.737 0.844 27.962 140.0 0.823 34.881 1455.0 27.961 29.737 0.844 27.962 150.4 0.776 34.885 1454.9 27.961 29.717 0.817 27.968 160.0 0.802 34.880 1455.2 27.970 29.685 0.770 27.968 160.0 0.802 34.880 1455.2 27.970 29.715 0.795 27.971 25.1 0.028 44.055 0.029 42.640 0.030 40.232 0.031 36.957 0.032 32.688 0.034 30.158 0.036 29.322 0.037 25.646 0.040 21.009 0.042 18.155 0.044 17.016 0.046 100.1 16.369 0.048 110.1 15.289 0.049 120.1 14.651 0.051 130.1 13.998 0.052 140.0 13.960 0.054 140.0 0.823 34.881 1455.0 27.961 29.717 0.817 27.962 150.4 0.776 34.885 1454.9 27.967 29.685 0.770 27.968 160.0 0.802 34.890 1455.2 27.970 29.715 0.795 27.971 170.1 0.712 34.884 1454.9 27.971 29.638 0.705 27.972 180.0 0.587 34.882 1454.5 27.977 29.533 0.580 27.978 190.0 0.505 34.881 1454.3 27.981 29.465 0.497 27.982 200.1 0.470 34.884 1454.3 27.985 29.442 0.462 27.986 220.0 0.421 34.885 1454.4 27.990 29.410 0.412 27.991 240.0 0.378 34.886 1454.6 27.993 29.382 0.368 27.994 260.0 0.243 34.881 1454.3 27.996 29.272 0.233 27.997 230.0 0.159 34.876 1454.2 27.997 29.205 0.148 27.999 300.0 0.159 34.876 1454.2 27.997 29.205 0.148 27.999 300.0 0.130 34.222 1454.6 28.001 29.237 0.168 28.002 320.0 0.131 34.883 1454.8 28.004 29.205 0.119 28.005 340.0 0.114 34.885 1455.0 28.007 29.200 0.100 28.008 360.1 0.098 34.891 1455.3 28.013 29.200 0.083 28.014 380.0 0.008 34.891 1455.3 28.015 29.130 -0.006 28.016 400.1 0.026 34.891 1455.6 28.015 29.130 -0.006 28.016 400.1 0.026 34.891 1455.2 28.015 29.130 -0.006 28.016 400.1 0.026 34.891 1455.2 28.015 29.130 -0.006 28.016 400.1 0.026 34.891 1455.3 28.013 29.200 0.100 28.028 50.00 -0.132 34.902 1457.3 28.028 29.098 -0.120 28.030 550.0 -0.132 34.902 1457.3 28.028 29.098 -0.120 28.030 550.0 -0.132 34.902 1457.3 28.033 29.097 -0.154 28.035 600.0 -0.170 34.903 1458.0 28.036 29.087 -0.194 28.038 650.1 -0.259 34.904 1458.4 28.042 29.034 -0.285 28.043 700.1 -0.313 34.904 1458.4 28.042 29.034 -0.285 28.043 700.1 -0.313 34.904 1458.4 28.045 29.034 -0.285 28.043 700.1 -0.377 34.905 1459.5 28.049 29.011 -0.341 28.047 750.0 -0.377 34.905 1459.5 28.049 29.011 -0.341 28.047 750.0 -0.377 34.905 1459.5 5 28.049 29.011 -0.341 28.047 750.0 -0.377 34.905 1459.5 5 28.049 29.011 -0.341 28.047 750.0 -0.377 34.905 1459.5 5 28.049 29.011 -0.341 28.047 750.0 -0.377 34.905 1459.5 5 28.049 29.011 -0.341 28.047 750.0 -0.377 34.905 1459.5 5 28.049 29.011 -0.341 28.047 750.0 -0.377 34.905 1459.0 5 28.049 29.011 -0.341 28.045 29.051 13.388 150.4 0.055 13.169 0.056 13.056 0.058 12.452 0.059 12.023 0.060 11.620 11.212 0.061 0.064 10.918 0.066 10.498 0.068 10.324 0.070 10.025 0.072 9.679 0.074 9.409 0.076 8.831 0.078 8.533 0.079 8.423 0.081 7.900 0.085 7.153 0.089 6.580 0.092 6.238 0.096 0.099 700.1 -0.313 34.904 750.0 -0.377 34.905 1459.0 28.045 29.011 -0.341 28.047 1459.5 28.049 28.980 -0.406 28.051 5.091 0.101 4.552 0.104 800.0 -0.449 34.905 1460.0 28.052 28.940 -0.481 28.054 3.995 0.106 850.1 -0.489 34.906 1460.6 28.055 28.929 -0.522 28.057 900.0 -0.521 34.906 1461.3 28.056 28.923 -0.557 28.059 950.2 -0.551 34.909 1462.0 28.060 28.921 -0.589 28.062 3.599 0.108 3.296 0.109 2.856 0.111

2.565

0.112

1000.0 -0.578 34.909 1462.7 28.061 28.920 -0.618 28.063

STA. 028D 71-19.9N 009- 3.2W 08/14/90 18.1 HRS GMT, WIND KNOTS/DIR 005/050, AIR TEMP. 7.2° C, DEW PT 6.1°C, 574 RECORDS **DEPTH 2200 M** TEMP SAL'TY SNDSPD SIG-T COND THETA SIGTH DYNDTH SVA DBAR PSU kg/m³ dS/m ٥C x108 m/s kg/m³ DYN M 2.469 0.000 2.146 0.001 100.0 -0.600 34.911 1465.4 28.064 28.925 -0.645 28.067 1150.0 -0.662 34.911 1464.2 28.065 28.930 -0.665 28.067 1200.0 -0.665 34.912 1465.6 28.067 28.931 -0.692 28.070 1200.0 -0.662 34.912 1465.6 23.068 28.938 -0.711 28.070 1250.1 -0.690 34.913 1466.3 28.070 28.936 -0.742 28.073 1300.0 -0.721 34.913 1467.0 28.071 28.938 -0.774 28.074 1350.0 -0.737 34.913 1467.8 28.071 28.938 -0.774 28.074 1400.0 -0.760 34.913 1468.5 28.072 28.941 -0.818 28.075 1450.1 -0.782 34.913 1469.2 28.073 28.943 -0.844 28.076 1500.1 -0.799 34.912 1470.0 28.073 28.949 -0.863 28.077 1550.1 -0.811 34.912 1470.8 28.074 28.960 -0.878 28.078 1650.1 -0.829 34.912 1471.6 28.074 28.960 -0.878 28.078 1650.1 -0.829 34.911 1472.4 28.074 28.999 -0.912 28.078 1700.0 -0.837 34.911 1473.2 28.074 29.036 -0.901 28.077 1700.0 -0.837 34.911 1474.8 28.074 29.018 -0.917 28.078 1850.1 -0.848 34.910 1475.6 28.074 29.036 -0.923 28.078 1950.1 -0.863 34.990 1477.2 28.074 29.051 -0.932 28.078 1950.1 -0.863 34.990 1477.2 28.074 29.051 -0.932 28.078 1950.1 -0.863 34.990 1477.2 28.074 29.076 -0.962 28.078 1950.1 -0.863 34.990 1477.2 28.074 29.094 -0.962 28.078 1950.1 -0.863 34.990 1477.2 28.074 29.094 -0.962 28.078 1950.1 -0.869 34.990 1477.2 28.074 29.094 -0.962 28.078 2000.0 -0.889 34.990 1478.1 28.074 29.094 -0.962 28.078 2000.0 -0.889 34.990 1478.1 28.074 29.094 -0.962 28.078 2150.0 -0.889 34.990 1478.1 28.074 29.112 -0.992 28.078 2150.0 -0.889 34.990 1478.1 28.074 29.112 -0.992 28.078 2150.0 -0.889 34.990 1478.1 28.074 29.112 -0.992 28.078 2150.0 -0.906 34.907 1480.4 28.074 29.112 -0.992 28.078 2150.0 -0.906 34.907 1480.4 28.074 29.112 -0.992 28.078 2150.0 -0.906 34.907 1480.4 28.074 29.112 -0.992 28.078 2150.0 -0.906 34.907 1480.4 28.074 29.112 -1.008 28.079 2153.0 -0.907 34.908 1480.5 28.075 29.122 -1.010 28.079 2153.0 -0.907 34.908 1480.5 28.075 29.122 -1.010 28.079 1.911 0.002 1.531 0.003 1.346 0.004 0.964 0.004 0.652 0.005 0.477 0.005 0.182 0.005 -0.102 0.005 -0.2860.005 -0.518 0.005 -0.662 0.004 -0.7530.004 -0.950 0.004 -1.0780.003 -1.1950.002 -1.3370.002 -1.4710.001 ~1.599 0.000 -1.776 -0.001-1.913 -0.001 -2.121 -0.002 -2.324 - 0.004

-2.467 - 0.004

STA. 029 71-45.7N 007-49.4W 08/15/90 6.1 HRS GMT, 1001 RECORDS WIND KNOTS/DIR 009/005, AIR TEMP. 7.2° C, DEW PT 6.1°C, DEPTH 2475 M

PRESS TEMP SAL'TY SNDSPD SIG-T COND THETA SIGTH SVA	DYNDTH
DBAR °C PSU m/s kg/m³ dS/m °C kg/m³ ×10°	DYN M
1.0 6.105 32.550 1472.0 25.604 32.275 6.105 25.604 237.31 3.0 6.111 32.552 1472.1 25.605 32.283 6.111 25.605 237.22 5.0 6.085 32.550 1472.0 25.606 32.289 6.084 25.607 237.11 7.1 6.090 32.551 1472.1 25.606 32.265 6.090 25.607 237.11 9.0 5.926 32.533 1471.4 25.612 32.109 5.925 25.613 236.61 11.0 5.588 32.549 1470.1 25.665 31.835 5.587 25.666 231.51 13.0 5.074 32.519 1468.0 25.700 31.371 5.073 25.700 228.27 15.1 2.541 32.627 1457.5 26.028 29.333 2.540 26.029 196.98 17.1 0.697 33.022 1449.9 26.473 28.121 0.696 26.473 154.7 19.0 -0.330 33.331 1445.6 26.774 27.511 -0.331 26.775 126.10 23.1 -0.469 33.486 1445.2 26.905 27.514 -0.470 26.906 113.61 23.1 -0.699 33.660 1444.4 27.055 27.454 -0.700 27.056 99.37 25.0 -0.783 33.774 1444.2 27.151 27.470 -0.784 27.151 90.32 25.0 -0.783 33.774 1444.2 27.151 27.470 -0.784 27.151 90.33 25.0 -0.783 33.744 1444.2 27.222 27.602 -0.707 27.222 83.66 35.0 -0.783 34.165 1448.2 27.434 28.372 -0.054 27.455 33.1 0.756 34.233 1452.0 27.444 29.110 0.754 27.445 62.63 35.0 0.112 34.165 1448.0 27.426 28.514 0.110 27.426 44.3 45.0 -0.113 34.59 1448.0 27.426 28.514 0.110 27.426 44.3 45.0 -0.113 34.59 1448.0 27.426 28.514 0.110 27.426 44.3 45.0 -0.113 34.59 1448.0 27.426 28.514 0.110 27.426 44.3 45.0 -0.113 34.59 1448.0 27.867 28.841 0.142 27.737 34.91 40.0 -0.221 34.165 1449.9 27.867 28.855 -0.115 27.724 36.11 10.0 0.023 34.618 1448.5 27.736 28.861 0.142 27.737 36.11 10.0 0.023 34.618 1448.5 27.793 28.595 -0.115 27.794 56.50 0.112 34.165 1449.4 27.898 28.754 -0.137 27.898 19.60 0.0 0.003 34.856 1455.2 27.976 29.324 0.054 27.455 36.15 10.0 0.003 34.856 1455.2 27.978 28.855 -0.211 27.868 22.55 10.0 0.123 34.618 1448.5 27.798 28.754 -0.137 27.898 19.60 0.0 0.003 34.856 1455.3 27.981 29.373 0.004 27.986 14.31 10.0 0.223 34.815 1455.2 27.995 29.371 0.448 27.737 36.41 10.0 0.223 34.815 1455.3 27.996 29.322 0.378 27.995 13.37 10.0 0.403 34.875 1455.9 27.995 29.371 0.448 27.995 27.995 13.37 10.0 0.403 34.886 1455.9 27.995 29.373 0.375 27.996 14.33 10.0 0.403 34.886 1455.9 27.996 29.297 0.272 27.997 10.55 2	0.0072 0.0072 0.0072 0.0072 0.00171 0.00315 0.0035 0.0044 0.0055 0.00

STA. 030 72-8.3N 006-37.4N 08/15/90 10.1 HRS GMT, 999 RECORDS WIND KNOTS/DIR 010/010, AIR TEMP. 8.3° C, DEW PT 7.8°C, DEPTH 2940 M **PRESS** TEMP SAL'TY SNDSPD SIG-T COND THETA SIGTH SVA DYNDTH DBAR ٥C PSU m/s kg/m³ dS/m °C kg/m³ ×108 DYN M 6.639 26.555 6.625 26.558 6.640 33.841 1475.8 26.554 33.904 147.065 0.003 6.626 33.844 1475.7 26.558 33.894 6.605 33.847 1475.7 26.564 33.880 3.0 146.710 0.004 5.0 6.604 26.564 146.179 0.007 146.784 6.623 33.843 1475.8 26.558 33.893 6.622 26.558 0.010 0.013 0.016 0.019 0.021 0.023 0.026 0.027 0.029 0.030 0.031 0.032 0.033 0.035 0.036 0.038 0.040 0.042 0.043 0.045 0.046 110.1 -0.165 34.813 1449.9 27.963 28.801 -0.169 27.964 120.0 -0.117 34.324 1450.3 27.970 28.855 -0.122 27.971 130.0 0.109 34.853 1451.5 27.981 29.075 -0.104 27.982 140.0 0.230 34.866 1452.2 27.985 29.194 0.225 27.986 150.0 0.225 34.869 1452.4 27.988 29.196 0.219 27.988 160.0 0.222 34.874 1452.5 27.992 29.202 0.215 27.998 130.0 0.206 34.878 1452.7 27.995 29.210 0.216 27.996 130.0 0.206 34.879 1452.8 27.997 29.202 0.199 27.998 190.0 0.176 34.879 1452.8 27.999 29.180 0.168 27.999 200.0 0.140 34.880 1452.8 28.001 29.154 0.132 28.002 220.0 0.102 34.880 1453.3 28.004 29.131 0.093 28.005 240.0 0.092 34.884 1453.3 28.007 29.135 0.083 28.005 240.0 0.092 34.886 1453.6 28.012 29.103 0.021 28.013 300.0 -0.032 34.886 1453.6 28.012 29.103 0.021 28.013 300.0 -0.035 34.886 1453.6 28.012 29.103 0.021 28.013 320.1 -0.121 34.880 1453.6 28.012 29.103 0.021 28.013 320.1 -0.121 34.880 1453.6 28.012 29.052 -0.046 28.013 320.1 -0.262 34.879 1453.9 28.002 28.8986 -0.133 28.016 340.0 -0.267 34.887 1453.5 28.017 29.135 0.083 28.005 28.010 0.002 34.880 1453.6 28.012 29.052 -0.046 28.013 350.0 -0.068 34.879 1453.9 28.012 29.052 -0.046 28.013 350.1 -0.262 34.887 1453.5 28.017 29.135 0.021 28.013 350.1 -0.262 34.885 1455.6 28.015 28.986 -0.131 28.016 340.0 -0.267 34.885 1455.6 28.015 28.986 -0.138 28.016 340.0 -0.267 34.885 1455.5 28.039 28.752 -0.541 28.026 450.0 -0.360 34.832 1454.2 28.024 28.898 -0.282 28.026 450.0 -0.360 34.832 1454.2 28.024 28.898 -0.282 28.026 450.0 -0.360 34.832 14554.2 28.024 28.898 -0.282 28.026 450.0 -0.662 34.885 1455.5 28.039 28.752 -0.541 28.040 600.1 -0.6626 34.885 1455.5 28.039 28.752 -0.541 28.040 70.0 -0.664 34.885 1455.5 28.039 28.752 -0.541 28.040 70.0 -0.664 34.885 1455.6 28.055 28.727 -0.714 28.053 800.0 -0.666 34.891 1458.0 28.055 28.727 -0.719 28.055 28.050 1.0665 34.908 1460.9 28.061 28.853 -0.666 28.065 28.0 0.048 0.049 0.050 0.051 0.052 0.054 0.055 0.056 0.057 0.058 0.060 0.062 0.063 0.065 0.067 0.069 0.070 0.072 0.074 0.075 0.079 0.082 0.085 5.453 4.937 0.087 4.329 0.090 3.974 0.092 0.094 3.634 3.197 0.095 3.010 0.097 900.1 -0.605 34.908 1460.9 28.061 28.853 -0.640 28.063 2.646 0.098 950.0 -0.629 34.908 1461.6 28.063 28.854 -0.666 28.065 1000.0 -0.660 34.909 1462.3 28.065 28.850 -0.700 28.067 0.099 2.324 1.962 0.101

STA. 031S 72-31.3N 005-26.8W 08/15/90 15.1 HRS GMT, 1000 RECORDS WIND KNOTS/DIR 008/025, AIR TEMP. 8.9° C, DEW PT 8.9°C, DEPTH 2620 M

STA. 031D 72-31.6N 005-27.1W 08/15/90 16.1 HRS GMT, WIND KNOTS/DIR 008/025, AIR TEMP. 8.9° C, DEW PT 8.9°C, 777 RECORDS **DEPTH 2620 M** PRESS TEMP SAL'TY SNDSPD SIG-T COND THETA SIGTH SVA DYNDTH DBAR PSU kg/m³ ٥Ĉ kg/m³ ×108 DYN M dS/m m/s 1000.0 -0.751 34.905 1461.9 28.066 28.770 -0.790 28.068 1.629 0.000 1050.0 -0.769 34.906 1462.6 28.067 28.778 -0.810 28.070 1100.0 -0.792 34.906 1463.3 28.068 28.779 -0.835 28.070 0.001 1.337 1.091 0.001 1150.1 -0.814 34.905 1464.1 28.069 28.781 -0.860 28.071 0.877 0.002 1200.1 -0.835 34.905 1464.8 28.069 28.785 -0.883 28.072 1250.1 -0.862 34.904 1465.5 28.070 28.784 -0.911 28.072 1300.1 -0.878 34.903 1466.3 28.070 28.790 -0.931 28.072 0.609 0.002 0.370 0.002 0.003 1350.0 -0.883 34.904 1467.1 28.071 28.808 -0.938 28.073 1400.0 -0.896 34.904 1467.9 28.071 28.818 -0.953 28.074 1450.1 -0.908 34.904 1468.6 28.071 28.829 -0.968 28.074 -0.0170.003 -0.232 0.003 -0.418 0.002 1450.1 -0.908 34.904 1468.6 28.071 28.829 -0.968 28.074 1500.1 -0.923 34.903 1469.4 28.071 28.837 -0.985 28.074 1550.0 -0.914 34.905 1470.3 28.073 28.867 -0.979 28.076 1600.1 -0.925 34.905 1471.1 28.073 28.879 -0.993 28.076 1650.0 -0.930 34.905 1471.9 28.073 28.895 -1.001 28.077 1700.0 -0.940 34.904 1472.7 28.073 28.895 -1.014 28.077 1750.0 -0.941 34.905 1473.5 28.074 28.927 -1.018 28.077 1800.0 -0.950 34.905 1474.3 28.074 28.927 -1.018 28.077 -0.6140.002 -0.8140.002 -1.0230.001 -1.182 0.001 -1.3370.000 -1.509 -0.001 -1 719 -0.001 1850.1 -0.957 34.904 1475.1 28.074 28.954 -1.039 28.077 1900.0 -0.961 34.904 1475.9 28.074 28.971 -1.046 28.078 1950.1 -0.962 34.905 1476.8 28.074 23.991 -1.050 28.078 -1.838 - 0.002-2.021 -0.003-2.175 - 0.0042000.0 -0.959 34.906 1477.6 28.075 29.014 -1.051 28.079 -2.347 - 0.0052050.1 -0.965 34.905 1478.4 28.075 29.029 -1.060 28.079 2100.1 -0.961 34.906 1479.3 28.075 29.054 -1.059 28.079 2150.0 -0.968 34.906 1480.1 28.075 29.067 -1.069 28.080 -2.482 -0.007 -2.611 - 0.008-2.781 - 0.0092200.1 -0.974 34.905 1480.9 28.075 29.082 -1.078 28.080 2250.0 -0.985 34.904 1481.7 28.075 29.091 -1.093 28.079 2300.1 -0.992 34.903 1482.6 28.074 29.105 -1.103 28.079 2350.0 -1.006 34.901 1483.3 28.073 29.111 -1.120 28.078 -2.930 - 0.011-3.075 - 0.012-3.177 - 0.014-3.333 - 0.0152400.0 -1.016 34.900 1484.1 28.072 29.121 -1.133 28.077 2450.0 -1.029 34.898 1484.9 28.072 29.129 -1.149 28.077 -3.448 - 0.017-3.598 - 0.0192500.0 -1.040 34.896 1485.7 28.071 29.138 -1.163 28.076 -3.698 -0.021 2550.1 -1.049 34.896 1486.5 28.071 29.150 -1.176 28.076 2551.0 -1.048 34.895 1486.5 28.070 29.150 -1.175 28.075 -3.915 - 0.023-3.832 -0.023

STA. 032S 72-53.2N 003-55.7W 08/15/90 21.1 HRS GMT, 1001 RECORDS WIND KNOTS/DIR 015/015, AIR TEMP. 6.1° C, DEW PT 5.0°C, DEPTH 2100 M

PRESS	TEMP	SAL'TY	SNDSPD	SIG-T	COND	THETA	SIGTH	SVA	DYNDTH
DBAR	C	PSU	m/s	kg/m³	dS/m	°C	kg/m³	×108	DYN M
3.01.0000000000000000000000000000000000	.820 .707 .686 .722 .795 .816 .796 .832 .857	34.878	1452.1 1452.5 1453.5 1454.1 1455.5 1456.4 1457.1 1457.5 1459.2 1459.8 1460.5	26.097 26.1153 26.153 26.153 26.3593 27.3618 27.3618 27.37.493 27.4935 27.7998 27.9988 27.9988 27.9988 27.9988 27.9988 27.9988 27.9988 27.9988 27.9988 28.0010 28.0010 28.0025 28.0033 28.0034 28.0033 28.0	28.870 28.874 28.875 28.7730 28.6875 28.675 28.6515 28.6515 28.6516 28.6616 28.6618 28.6618 28.6652 28.6557 28.6557	-0.444 -0.469 -0.428 -0.4559 -0.745 -0.745 -0.833 -0.786 -0.837 -0.728 -0.710 -0.747 -0.8428 -0.828	25.76.1550 22222222222222222222222222222222222	991 992 992 993 994 997 997 997 997 997 997 997	0.00553371446801233579033371446801225033714468012250337144680122503337144680122505557903555790355579035557903555790355579035557903555790355579035557903555790355579035557707777777777

STA. 032D 72-53.2N 003-56.8W 08/15/90 22.0 HRS GMT, 517 RECORDS WIND KNOTS/DIR 015/015, AIR TEMP. 6.1° C, DEN PT 5.0°C, DEPTH 2077 M

PRESS DBAR	TEMP °C	SAL'TY PSU	SNDSPD m/s	SIG-T kg/m³	COND dS/m	THETA	SIGTH kg∕m³	SVA ×108	DYNDTH DYN M
DBAR 1000.0 1050.1 1100.1 1150.1 1250.1 1350.1 1400.1 1450.0 1550.1 1650.1 1700.1	-0.864 -0.891 -0.955 -0.958 -0.959 -0.959 -0.959 -0.959 -0.959 -0.959 -0.959 -0.959	PSU 34.899 34.897 34.897 34.897 34.900 34.900 34.900 34.900 34.900 34.900 34.900 34.900	M/S 1461.3 1462.0 1462.7 1463.3 1465.2 1466.1 1466.7 1467.5 1468.4 1469.4 1470.1 1471.8 1472.5	kg/m ³ 28.067 28.066 28.066 28.067 23.068 28.071 28.070 28.071 28.074 28.074 28.074	dS/m 28.670 28.668 28.660 28.682 28.753 28.753 28.753 28.762 23.784 23.832 24.832 28.838 28.858 28.879	-0.902 -0.931 -0.966 -6.986 -0.997 -0.973 -1.007 -1.016 -1.018 -0.994 -1.015 -1.017 -1.024	kg/m³ 28.069 28.068 28.069 28.070 28.072 28.074 28.073 28.075 28.077 28.077 28.077	1.257 1.076 0.840 0.623 0.400 0.193 -0.069 -0.228 -0.431 -0.681 -0.892 -1.0193 -1.193 -1.528	DYN M 0.000 0.001 0.001 0.002 0.002 0.002 0.002 0.001 0.001 0.001 0.001
1750.1 1800.1	-0.978	34.904 34.903		28.074					-0.002 -0.003
1850.1	-0.987	34.904		28.075		-1.059 -1.073		-2.074	-0.004 -0.005
1950.1	0.996	34.903	1476.6	28.075	23.961	-1.084	28.079	-2.384	-0.006
2000.3	-0.999 -1.006	34.903 34.904							800.00 -0.003

STA. 033S 73-20.0N 002-49.2N 08/16/90 10.1 HRS GMT, 998 RECORDS WIND KNOTS/DIR 023/025, AIR TEMP. 7.2° C, DEW PT 6.7°C, DEPTH 2875 M

11.0	PRESS	T EMP	SAL'TY	SNDSPD	SIG-T	COND	THETA	SIGTH	SVA	DYNDTH
	DBAR	°C	PSU	m/s	kg/m³	dS∕m	°C	kg/m³	×108	DYN M
850.0 -0.843 34.897 1459.0 28.063 28.620 -0.874 28.065 2.004 0.085 900.0 -0.839 34.900 1459.8 28.066 28.648 -0.872 28.068 1.641 0.286 950.0 -0.895 34.897 1460.4 28.066 28.620 -0.930 28.067 1.389 0.087 1000.0 -0.872 34.901 1461.3 28.068 28.664 -0.910 28.070 1.110 0.088	357913.000001 115791.000001 1157791.000001 1157791.00000000000000000000000000000000000	8883887573677369524934442853388757367736952493444285338875773695249344428552566665427338106658842733810665884273385566698106658842733855666981066588427335566698106658842733556669810665884273355666981066588427335566698106658842735566698106658842735566698106658842735566698106658842735566698106658842735566698106658842735566698106658842735566698106658842735566698106658842735566698106658842735566698106658842735566698106658842735566698106658842735566698106658842735566698106658842735566698106665884273556669810666588427355666981066658842735566698106665884273556669810666588427355666981066658842735566698106665884273556669810666588427355666981066658842735566698106665884273556669810666588427355666981066658842735566698106665884273556669810666588427355666981066658842735666698106666669810666666981066666698106666698106666698106666698106666698106666698106666698106666669810666666698106666669810666666698106666666698106666666666	98 1078164989305644333802008552661186449777896603929578777853333333333333333333333333333333	43210649366204355002696000777462011110395522365754427753332777963231009988900011222221111111111111111111111	25.713118377225.713118377.766.5077.766.	33333333333333333333333333333333333333	8772276446225812721984188041904499011225354224491101133505332664404499011225354224491101133505332664404499011225354990000000000000000000000000000000000	255.776.9386.317746882160580014280313522222222222222222222222222222222222	27.26145 261465 261465 261465 261465 261465 27.26166 27.27.2166 27.27.2166 27.27.2166 27.27.2166 27.27.2166 27.27.2166 27.27.27.27 27.27.27.27 27.27 2	711604468024456789022345678901222223333333444444444444555555555566666666777778888888888

STA. 033D 73-20.0N 002-49.2N 08/16/90 10.1 HRS GMT, WIND KNOTS/DIR 023/025, AIR TEMP. **** C, DEN PT 7.2°C, DEPTH 2875 M DYNDTH **PRESS** TEMP SAL'TY SNDSPD SIG-T COND THETA SIGTH SVA O C DBAR PSU kg/m³ kg/m³ x108 m/s dS/m DYN M 1000.0 -0.904 34.897 1461.1 28.066 28.634 -0.942 28.068 1.224 0.000 1050.1 -0.918 34.897 1461.9 28.066 28.644 -0.958 28.068 1100.1 -0.937 34.897 1462.7 28.067 28.650 -0.978 28.069 0.9900.001 0.766 0.001 1150.0 -0.939 34.897 1463.5 28.067 28.669 -0.983 28.070 0.588 0.001 0.340 0.002 0.096 0.002 0.016 0.002 -0.288 0.002 -0.497 0.001 -0.680 0.001 -0.8700.001 -1.002 0.000 -1.178 0.000 **-1.372 -0**. 1 -1.473 -0...2 -1.649 -0.002

902 RECORDS

1100.1 -0.937 34.897 1462.7 28.067 28.650 -0.978 28.069 1150.0 -0.939 34.897 1463.5 28.067 28.669 -0.933 28.070 1200.0 -0.923 34.900 1464.4 28.069 28.707 -0.970 28.072 1250.1 -0.937 34.901 1465.2 28.070 28.717 -0.986 28.072 1300.1 -0.958 34.898 1465.9 28.069 28.718 -1.009 28.071 1350.0 -0.992 34.897 1466.6 28.069 28.710 -1.046 28.072 1400.1 -0.963 34.901 1467.5 28.071 28.759 -1.020 28.074 1450.0 -0.998 34.898 1468.2 28.070 28.774 8 -1.057 28.073 1500.0 -0.997 34.899 1469.0 28.071 28.771 -1.059 28.073 1500.0 -0.997 34.899 1469.0 28.071 28.771 -1.059 28.074 1550.1 -0.973 34.901 1470.0 28.072 28.814 -1.038 28.075 1660.1 -0.995 34.900 1470.8 28.072 28.820 -1.057 28.075 1700.1 -0.994 34.900 1471.6 28.072 28.858 -1.066 28.075 1750.0 -0.996 34.900 1472.4 28.072 28.858 -1.066 28.075 1750.0 -0.996 34.900 1474.1 28.072 28.877 -1.072 28.076 1850.1 -0.999 34.901 1474.1 28.073 28.896 -1.077 28.076 1850.1 -0.999 34.901 1474.1 28.073 28.896 -1.077 28.076 1850.1 -0.999 34.901 1474.1 28.073 28.896 -1.031 28.077 1900.1 -1.001 34.901 1475.7 28.073 28.916 -1.031 28.077 25.01 -1.001 34.901 1475.7 28.073 28.996 -1.002 28.077 25.01 -1.001 34.901 1477.4 28.073 28.996 -1.002 28.077 25.01 -1.006 34.901 1477.4 28.073 28.996 -1.100 28.077 25.01 -1.007 34.902 1476.6 28.073 28.996 -1.100 28.077 25.01 -1.007 34.902 1479.1 28.073 29.027 -1.112 28.078 2250.1 -1.017 34.901 1479.9 28.073 29.027 -1.112 28.078 2250.1 -1.019 34.900 1481.6 28.073 29.042 -1.120 28.078 2250.1 -1.019 34.900 1481.6 28.073 29.042 -1.120 28.078 2250.1 -1.019 34.899 1432.4 28.073 29.042 -1.120 28.078 2250.1 -1.055 34.897 1483.2 28.071 29.084 -1.148 28.076 2450.0 -1.055 34.897 1483.2 28.071 29.084 -1.148 28.076 2450.0 -1.055 34.897 1483.2 28.071 29.084 -1.179 28.076 2450.0 -1.056 34.895 1485.6 28.070 29.124 -1.179 28.075 2550.1 -1.059 34.894 1486.5 28.070 29.124 -1.179 28.075 2550.1 -1.059 34.894 1486.5 28.070 29.124 -1.179 28.075 2550.1 -1.059 34.894 1486.5 28.070 29.139 -1.186 28.075 -1.824 - 0.003-2.006 -0.004 -2.141 -0.005 -2.290 -0.006 -2.446 -0.008 -2.581 -0.009 -2.741 -0.010 -2.871 - 0.012-3.017 - 0.013-3.125 -0.015 -3.246 -0.016 -3.348 -0.018 -3.526 -0.020 -3.659 -0.021 2500.1 -1.056 34.895 1485.6 28.070 29.124 -1.179 28.075 2550.1 -1.039 34.894 1486.5 28.069 29.139 -1.186 28.075 2500.1 -1.061 34.894 1487.3 28.070 29.157 -1.192 28.075 -3.762 -0.023-3.866 -0.025 -4.030 -0.027 2650.0 -1.063 34.893 1488.2 28.069 29.174 -1.197 28.074 -4.104 -0.029 2700.1 -1.064 34.894 1489.0 23.069 29.193 -1.202 28.075 -4.282 -0.031 2750.0 -1.063 34.893 1489.9 28.069 29.213 -1.204 28.075 -4.364 -0.033 28.00.0 -1.060 34.892 1490.7 28.068 29.234 -1.205 28.074 -4.418 -0.036 -4.364 -0.033

STA. 034 73-45.8N 001-29.9E 08/16/90 22.1 HRS GMT, 998 RECORDS WIND KNOTS/DIR 010/030, AIR TEMP. 7.8° C, DEN PT 6.1°C, DEPTH 3550 M

PRESS	TEMP	SAL'TY	SNDSPD	SIG-T	COND	THETA	SIGTH	SVA	DYNDTH
DBAR	°C	FSU	m/s	kg∕m³	dS/m	°C	kg∕m³	×108	DYN M
60.0 70.0 80.0 100.0 110.0 120.0 130.0 140.0 150.0 1200.0 2200.0 240.0 2200.0 240.0 240.0 240.0 240.0 240.0 2500.0 3400.0 4500.0 6500.0 7500.0 8500.0 950.0	2.833123 4805123 48	883882699834367891901567657521331398880902697981923129 22299876998343678919015676575213313988809026979888989999 444444444444444444444444444444444444	147556632870114435506026534198.01588799.247154777329466207530060266534198.015887997154555501144444444444444444444444444444	26.9484 94186 9418	344.0027 073144.0027 074.00344.0027 105.0034.002	887720 6.337521547666634220 5.7746864220 6.6.321547666666666666666666666666666666666666	26.949786.949789786.9497886.9497886.9497886.9497886.9497886.9588.955432777.555325.42222222222222222222222222222222	109.7395 1109.7395 1109.7397 1	0.0012456780124557890112455000000000000000000000000000000000

STA. 035S 72-57.5N 001-12.2W 08/17/90 8.1 HRS GMT, 1001 RECORDS WIND KNOTS/DIR 025/030, AIR TEMP. 7.2° C, DEW PT 6.1°C, DEPTH 2800 M

STA. 035D 72-57.6N 001-12.0N 08/17/90 9.1 HRS GMT, 852 RECORDS 7.2° C, DEW PT 6.1°C, WIND KNOTS/DIR 025/030, AIR TEMP. DEPTH 2800 M TEMP SAL'TY SNDSPD SIG-T COND **PRESS** THETA SIGTH SVA DYNDTH DBAR PSU kg/m³ ٥C x108 m/s dS/m kg/m³ DYN M 1.638 0.000 1.436 1.133 0.001 0.001 1150.1 -0.853 34.901 1463.9 28.067 28.746 -0.897 1200.1 -0.863 34.901 1464.7 28.067 28.759 -0.910 1250.1 -0.885 34.900 1465.4 28.068 28.761 -0.935 28.746 -0.897 28.069 0.919 0.002 28.759 -0.910 28.070 0.728 0.002 28.070 0.495 0.003 1250.1 -0.885 34.900 1465.4 20.060 20.761 -0.953 20.070 1300.1 -0.900 34.901 1466.2 28.068 28.770 -0.952 28.071 1350.1 -0.921 34.900 1466.9 28.069 28.772 -0.976 28.071 1400.1 -0.939 34.899 1467.6 28.068 28.778 -0.995 28.071 1450.0 -0.951 34.899 1468.4 28.069 28.789 -1.010 28.072 1500.1 -0.953 34.900 1469.2 28.070 28.809 -1.015 28.073 1550.0 -0.953 34.900 1470.1 28.070 28.830 -1.018 28.073 1600.1 -0.959 34.900 1470.9 28.070 28.846 -1.027 28.074 0.248 0.003 0.014 0.003 -0.1540.003 -0.373 0.003 -0.5870.002 -0.765 0.002 -0.9260.002 1650.1 -0.961 34.901 1471.7 28.071 28.865 -1.027 28.074 1650.1 -0.967 34.901 1472.5 28.072 28.881 -1.040 28.075 1750.1 -0.971 34.901 1473.4 28.071 28.898 -1.047 28.075 -1.1070.001 -1.3370.001 -1.454 0.000 1750.1 -0.971 34.901 1473.4 28.071 28.898 -1.047 28.075 1800.0 -0.970 34.901 1474.2 28.072 28.920 -1.049 28.075 1850.0 -0.976 34.901 1475.0 28.072 28.935 -1.058 28.076 1900.1 -0.980 34.901 1475.8 28.072 28.952 -1.065 28.076 1950.1 -0.982 34.900 1476.7 28.072 28.971 -1.070 28.076 2000.1 -0.985 34.901 1477.5 28.073 28.989 -1.076 28.077 2050.1 -0.987 34.901 1478.3 28.072 29.007 -1.082 28.077 2100.1 -0.990 34.901 1479.2 28.073 29.026 -1.087 28.077 2150.0 -0.991 34.901 1480.0 28.073 29.026 -1.087 28.077 -1.598 - 0.001-1.783 - 0.002-1.936 -0.003 -2.043 - 0.004-2.261 - 0.005-2.391 -0.006 -2.542 -0.007 2150.0 -0.991 34.900 1480.0 28.072 29.044 -1.092 28.076 2200.1 -0.994 34.901 1480.8 28.072 29.061 -1.098 28.077 2250.1 -0.993 34.901 1481.7 28.073 29.083 -1.100 28.077 -2.620 -0.008-2.796 - 0.010-2.966 -0.011 2300.1 -0.995 34.901 1482.5 28.073 29.101 -1.106 28.077 2350.0 -1.004 34.900 1483.3 28.072 29.112 -1.118 28.077 2400.1 -1.008 34.899 1484.2 28.071 29.128 -1.125 28.076 2450.1 -1.013 34.898 1485.0 28.071 29.143 -1.134 28.076 -3.080 - 0.013-3.223 -0.014 -3.303 - 0.016-3.447 - 0.0182500.0 -1.019 34.898 1485.8 28.071 29.156 -1.143 28.076 2550.1 -1.025 34.896 1486.6 28.070 29.170 -1.152 28.075 2600.0 -1.028 34.896 1487.5 28.070 29.187 -1.159 28.075 -3.594 - 0.019-3.667 - 0.021-3.813 - 0.0232650.1 -1.030 34.894 1488.3 28.069 29.203 -1.165 28.074 2700.0 -1.033 34.895 1489.2 28.069 29.220 -1.172 28.075 2702.0 -1.033 34.894 1489.2 28.068 29.220 -1.172 28.074 -3.855 -0.025 -4.034 -0.027 -3.984 - 0.027

STA. 036 72-28.3N 002-31.2W 08/17/90 16.1 HRS GMT, 1000 RECORDS WIND KNOTS/DIR 028/025, AIR TEMP. 7.8° C, DEN PT 7.8°C, DEPTH 2950 M

STA. 037 71-54.3N 003-42.6W 08/17/90 23.1 HRS GMT, 999 RECORDS WIND KNOTS/DIR 015/070, AIR TEMP. 7.8° C, DEW PT 7.8°C, DEPTH 2125 M

STA. 038 71-22.4N 005- 4.9N 08/18/90 5.1 HRS GMT, 1000 RECORDS WIND KNOTS/DIR 013/035, AIR TEMP. 8.9° C, DEN PT 8.9°C, DEPTH 2700 M TEMP SAL'TY SNDSPD **PRESS** SIG-T COND THETA SIGTH SVA DYNDTH ×108 kg/m³ kg/m³ DBAR dS/m ٥C DYN M 7.161 34.438 1478.6 26.953 34.915 109.212 2.0 7.160 26.954 0.002 3.0 7.159 34.436 1478.6 26.952 34.913 7.159 26.953 109.292 0.003 7.162 34.438 1478.6 26.954 34.918 7.151 34.437 1478.6 26.954 34.908 7.149 34.437 1478.6 26.954 34.907 7.150 34.438 1478.6 26.955 34.910 7.137 34.438 1478.6 26.955 34.896 7.161 26.954 109.216 5.0 0.005 7.150 26.955 109,174 0.008 9.0 7.148 26.955 109.233 0.010 7.149 26.955 11.1 109.208 0.012 13.1 7.136 26.955 109.307 0.014 7.110 34.434 1478.6 26.954 34.896 7.110 34.428 1478.6 26.953 34.866 7.077 34.427 1478.5 26.956 34.836 6.952 34.418 1478.0 26.967 34.716 6.817 34.433 1477.5 26.997 34.607 6.178 34.484 1475.1 27.122 34.075 5.927 34.499 1474.2 27.166 33.863 5.457 34.467 1472.3 27.199 33.413 7.109 26.953 15.1 109.463 0.016 7.075 26.957 6.950 26.968 6.815 26.997 109.134 17.0 0.019 19.0 108.160 0.021 21.0 105.370 0.023 6.176 27.123 5.925 27.167 5.455 27.199 93.499 23.0 0.025 89.329 86.231 25.1 0.027 27.0 0.029 5.457 34.467 1472.3 27.199 33.413 4.470 34.550 1468.4 27.378 32.602 3.760 34.561 1465.5 27.461 31.981 2.718 34.618 1461.2 27.606 31.112 2.247 34.669 1459.3 27.608 30.743 1.689 34.638 1456.9 27.705 30.235 1.233 34.668 1455.0 27.762 29.866 0.427 34.720 1451.6 27.856 29.215 0.361 34.791 1451.6 27.856 29.215 0.361 34.789 1453.2 27.897 29.489 0.549 34.827 1452.8 27.935 29.416 4.468 27.379 3.758 27.462 2.716 27.606 2.245 27.686 1.687 27.768 0.030 29.0 69.221 61.315 47.583 31.0 0.031 35.0 0.034 40.0 39.967 0.036 45.0 38.084 0.038 1.231 27.763 0.425 27.856 50.0 32.652 0.040 60.0 23.732 0.043 0.359 27.918 0.670 27.897 0.545 27.936 70.0 17.886 0.045 19.900 80.0 0.047 0.673 34.789 1453.2 27.897 29.489 0.549 34.827 1452.8 27.935 29.416 0.174 34.793 1451.2 27.934 29.076 0.568 34.840 1453.3 27.944 29.451 0.087 34.829 1451.2 27.963 29.034 0.544 34.874 1453.5 27.973 29.466 0.630 34.879 1454.1 27.972 29.548 0.684 34.889 1454.5 27.977 29.608 90.0 16.284 0.048 0.170 27.934 0.563 27.944 0.083 27.964 100.0 16.323 0.050 110.0 15.481 0.052 13.502 0.053 120.0 0.539 27.974 0.624 27.973 0.678 27.977 12.760 130.0 0.054 140.0 12.897 0.056 150.0 12.488 0.057 0.684 34.889 1454.5 27.977 29.608 0.673 34.891 1454.6 27.979 29.604 0.644 34.891 1454.6 27.980 29.583 0.508 34.885 1454.2 27.984 29.440 0.400 34.885 1454.0 27.987 29.440 0.400 34.885 1454.0 27.991 29.383 0.298 34.880 1453.9 27.993 29.300 0.219 34.885 1453.8 28.001 29.245 0.197 34.887 1454.1 28.003 29.237 0.143 34.888 1454.2 28.008 29.200 0.106 34.888 1454.2 28.008 29.177 0.062 34.890 1454.4 28.013 29.150 0.666 27.980 0.636 27.981 0.501 27.985 160.0 12.275 0.058 12.159 170.0 0.059 180.0 11.706 0.061 190.0 0.420 27.988 11.405 0.062 0.392 27.992 0.289 27.994 200.0 11.072 0.063 220.0 10.841 0.065 0.209 28.002 240.0 10.019 0.067 0.187 28.005 0.131 28.009 260.0 9.782 0.069 280.0 9.330 0.071 300.0 0.094 28.011 9.154 0.073 300.0 0.106 34.888 1454.3 28.009 29.177 0.094 28.011 320.1 0.062 34.890 1454.4 28.013 29.150 0.050 28.014 340.0 0.002 34.888 1454.5 28.015 29.106 -0.011 28.016 360.0 -0.040 34.887 1454.6 28.017 29.078 -0.054 28.018 380.0 -0.100 34.885 1454.6 28.017 29.035 -0.114 28.020 400.0 -0.153 34.884 1454.8 28.020 28.998 -0.168 28.022 450.0 -0.148 34.893 1455.6 28.027 29.032 -0.165 28.029 500.0 -0.245 34.393 1456.0 28.032 28.971 -0.264 28.033 550.1 -0.299 34.897 1456.6 28.032 28.971 -0.264 28.033 550.1 -0.331 34.900 1457.2 28.043 28.945 -0.354 28.044 650.0 -0.366 34.900 1457.8 28.045 28.924 -0.410 28.047 700.0 -0.420 34.903 1458.5 28.049 28.919 -0.447 28.051 8.757 0.075 8.533 0.076 8.343 0.078 8.100 0.080 7.848 0.081 7.176 0.085 6.577 0.089 5.906 0.092 5.368 0.094 0.097 4.993 700.0 -0.420 34.903 1458.5 28.049 28.919 -0.447 28.051 750.0 -0.476 34.903 1459.0 28.052 28.893 -0.505 28.054 4.484 0.099 4.062 0.102 800.0 -0.512 34.903 1459.7 28.054 28.885 -0.542 28.055 850.0 -0.547 34.905 1460.4 28.057 28.878 -0.580 28.059 900.0 -0.578 34.906 1461.0 28.059 28.875 -0.613 28.061 950.0 -0.641 34.904 1461.6 28.060 28.841 -0.678 28.062 3.745 0.103 3.279 0.105 2.920 0.107 2.594 0.108

1000.0 -0.633 34.909 1462.4 28.063 28.873 -0.673 28.066

2.196

STA. 039S 70-59.3N 006-30.5W 08/18/90 11.1 HRS GMT, 999 RECORDS WIND KNOTS/DIR 028/030, AIR TEMP. 8.9° C, DEW PT 7.8°C, DEPTH 3660 M

PRESS DBAR	TEMP °C	SAL'TY PSU	SNDSPD m/s	SIG-T kg∕m³	COND dS/m	THETA °C	SIGTH kg/m³	SVA ×10*	DYNDTH DYN M
DBAR 0011002040020010000010000111111100000011111111	763290056461814625889022210622554811631433779099885391 66666666664433333333222221110000000000000000000000	PSU 333333333333333333333333333333333333	**************************************	Kg/m 143 266.991243 266.9912243 266.9912243 266.9912243 266.9912243 277.34495 277.366.991222 277.366.99122 277.366.9912 277.366.99122 277.366.99122 277.366.99122 277.366.99122 277.366.	dS/m 39824 444334 444334 4443333333333333333333	655218994556024696987170086975777798279683668999948686495333333333333333333333333333333333333	# 91411302243799566.99118379222222222222222222222222222222222222		
950.1 - 1000.0 -	-0.616 -0.677	34.906	1461.7 1462.2	28.063	28.834	-0.716	28.066	2.543 2.063	$0.109 \\ 0.110$

STA. 039D 70-59.2N 006-31.6N 08/18/90 12.1 HRS GMT, 1251 RECORDS WIND KNOTS/DIR 028/030, AIR TEMP. 8.9° C, DEW PT 7.8°C, DEPTH 3660 M

PRESS DBAR		SAL'TY PSU	SNDSPD m/s	SIG-T kg/m³	COND dS/m	THETA °C	SIGTH kg/m³	SVA ×108	DYNDTH DYN M
2.0	24700983011730026252324100.4443241310775666.329726660117300262523274100.4443241310776666.32977655555555555555555555555555555555555	265555655576366483010054261971197592299661219217111574618 90555555555555555555555555555555555555	7555666677777331492374308742198763040888867981911114499111111111111111111111111111	26.918 26.918 26.919 26.919 26.919 26.919 26.919 26.919 26.919 26.922 27.339 27.4536 66.922 27.4536 66.922 27.4536 66.922 27.4536 66.922 27.4536 66.922 27.4536 66.922 27.4536 66.922 27.4536 66.922 27.4536 66.922 27.4536 66.922 27.4536 66.922 27.4737 27.4737 27.488 88.82 27.4888 88.82 27.4888 88.82 27.4888 88.82 27.4888 88.82 27.4888 88.82 27.4888 27	38.55.56.68.70.61.69.49.65.55.59.41.31.88.55.56.66.61.99.49.55.55.59.41.31.88.338.338.338.338.338.338.338.338.	26740973738933011872676434855737447772474433738554444433738620693400488557344477722626944700.00.00.00.00.00.00.00.00.00.00.00.00.	26.919 26.919	x108 0311 118.655896 118.655896 112.66421 112.66421 112.66421 112.77376 112.77376 112.773899 112.773899 112.770.8431 112.7	0.004 0.006 0.006 0.0013 0
1000.0	-0.090	34.695	1404.9	28.026	29.321	-0.134	20.029	7.165	0.294

STA. 040D 70-59.6N 000-47.4W 08/19/90 8.1 HRS GMT, 752 RECORDS WIND KNOTS/DIR 011/025, AIR TEMP. 10.0° C, DEW PT 5.6°C, DEPTH 2590 M PRESS TEMP SAL'TY SNDSPD SIG-T COND THETA SIGTH DY! DTH SVA оČС °C ×108 PSU kg/m³ DBAR kg/m³ dS/m DYN M m/s 6.941 0.000 5.958 0.003 5.197 U.006 4.525 0.008 3.794 1200.0 -0.452 34.901 1466.6 28.049 29.108 -0.503 28.052 1250.1 -0.513 34.901 1467.1 28.052 29.078 -0.566 28.055 1300.0 -0.559 34.903 1467.8 28.055 29.061 -0.615 28.058 1350.1 -0.639 34.902 1468.2 28.058 29.014 -0.697 28.061 1400.1 -0.661 34.904 1469.0 28.061 29.018 -0.721 28.064 1450.1 -0.682 34.906 1469.7 28.063 29.023 -0.744 28.067 1500.1 -0.726 34.906 1470.3 28.065 29.006 -0.791 28.068 1550.0 -0.752 34.907 1471.0 28.067 29.005 -0.820 28.071 1600.1 -0.769 34.907 1471.8 28.068 29.012 -0.839 28.071 1650.1 -0.795 34.906 1472.5 28.069 29.010 -0.868 28.072 1700.1 -0.823 34.906 1472.5 28.069 29.010 -0.868 28.072 1700.1 -0.823 34.906 1474.0 28.070 29.007 -0.898 28.073 1750.1 -0.837 34.906 1474.0 28.071 29.016 -0.915 28.074 1800.1 -0.850 34.907 1474.8 28.071 29.016 -0.915 28.075 1850.1 -0.861 34.906 1475.6 28.071 29.037 -0.945 28.075 1900.0 -0.869 34.906 1476.4 28.072 29.050 -0.956 28.076 1200.0 -0.452 34.901 1466.6 28.049 29.108 -0.503 28.052 0.010 3.245 0.012 2.674 0.014 0.015 0.016 1.604 1.221 0.017 0.776 0.017 0.388 0.017 (.156 0.017 - 140 - 3 477 0.017 0.017 -0.725 0.017 -0.963 0.017 -1.140 0.016 1850.1 -0.861 34.906 1475.6 28.071 29.037 -0.945 28.075 1900.0 -0.869 34.906 1476.4 28.072 29.050 -0.956 28.076 1950.1 -0.883 34.905 1477.1 28.072 29.059 -0.972 28.076 2000.0 -0.894 34.905 1477.9 28.071 29.069 -0.987 28.076 2050.1 -0.902 34.905 1478.7 28.072 29.083 -0.998 28.077 2100.1 -0.908 34.905 1479.6 28.072 29.097 -1.007 28.077 2150.0 -0.915 34.905 1480.4 28.073 29.112 -1.017 28.077 2200.1 -0.925 34.904 1481.2 28.072 29.123 -1.030 28.077 2250.1 -0.925 34.904 1482.0 28.073 29.144 -1.032 28.077 2300.1 -0.925 34.904 1482.9 28.073 29.163 -1.037 28.077 2300.1 -0.925 34.904 1482.9 28.073 29.163 -1.037 28.077 2350.0 -0.922 34.904 1483.7 28.072 29.185 -1.038 28.077 2400.0 -0.920 34.904 1484.6 28.072 29.206 -1.039 28.077 -1.313 0.015 -1.4960.015 -1.666 0.014 -1.9140.013 -2.056 0.012 -2.247 0.011 -2.383 0.010 0.009 -2.524 -2.639 0.007 -2.7270.006 2400.0 -0.920 34.904 1484.6 28.072 29.206 -1.039 28.077 2450.1 -0.917 34.904 1485.5 28.072 29.228 -1.040 28.077 2500.1 -0.913 34.904 1486.3 28.072 29.251 -1.039 28.077 2502.0 -0.913 34.904 1486.4 28.072 29.252 -1.040 28.077 -2.784 0.005 -2.899 0.003 -2.959 0.002 -2.952

STA. 041 71-40.1N 000-29.9E 08/19/90 16.1 HRS GMT, 999 RECORDS WIND KNOTS/DIR 010/025, AIR TEMP. 11.7° C, DEN PT 10.0°C, DEPTH 2650 M **PRESS** TEMP SAL'TY SNDSPD SIG-T COND THETA SIGTH SVA DYNDTH 00 x108 DBAR ٥C PSU kg/m³ kg/m³ m/s dS/m DYN M 109.454 109.389 3.0 10.075 35.015 1490.1 26.951 38.170 10.075 26.951 5.0 10.074 35.016 1490.1 26.952 38.171 10.074 26.953 0.003 0.005

 5.0
 10.074
 35.016
 1490.1
 26.952
 38.171
 10.074
 26.953

 7.0
 10.062
 35.015
 1490.1
 26.953
 38.160
 10.062
 26.954

 9.1
 10.058
 35.015
 1490.2
 26.955
 38.157
 10.057
 26.955

 11.0
 10.050
 35.015
 1490.2
 26.955
 38.163
 10.059
 26.955

 13.1
 10.061
 35.017
 1490.2
 26.955
 38.163
 10.059
 26.955

 15.0
 10.042
 35.014
 1490.2
 26.955
 38.163
 10.040
 26.956

 17.0
 9.997
 35.007
 1490.1
 26.958
 38.094
 9.995
 26.958

 19.0
 9.933
 35.009
 1489.8
 26.974
 38.013
 9.906
 26.971

 21.0
 9.999
 35.008
 1489.8
 26.974
 38.013
 9.906
 26.975

 23.0
 9.889
 35.007
 1489.8
 26.977
 37.987
 9.876
 26.977

 27.1
 9.866
 35.007
 1489.8
 26.980 10.062 35.015 1490.1 26.953 38.160 10.062 26.954 109.321 0.008 109.305 0.010 109.206 0.012 109.312 0.014 109.294 0.016 109.114 0.019 107.976 0.021 0.023 107.682 197.538 0.025 107.480 0.027 0.029 107.380 107.256 0.032 107.245 0.034 105.628 0.038 92.955 0.043 59.596 0.047 49.310 0.049 44.427 0.054 41.801 0.058 39.968 0.062 37.491 0.066 100.0 36,001 0.070 4.590 35.034 1471.1 27.736 33.245 4.551 35.025 1470.7 27.746 33.117 4.353 35.014 1470.0 27.759 32.932 4.200 35.009 1469.5 27.772 32.796 4.131 35.019 1469.4 27.787 32.747 4.201 35.038 1469.9 27.794 32.830 4.037 35.030 1469.6 27.801 32.725 110.1 4.543 27.748 35.251 0.073 4.344 27.760 4.191 27.773 120.1 34.114 0.077 32.955 130.0 0.080 140.3 4.121 27.788 31.605 0.084 4.191 27.796 4.075 27.802 150.1 31.030 0.087 150.1 4.201 35.038 1469.9 27.794 32.830 4.191 27.796 160.0 4.037 35.030 1469.6 27.801 32.725 4.075 27.802 170.0 4.005 35.031 1469.4 27.810 32.657 3.993 27.812 180.1 3.912 35.022 1469.2 27.813 32.571 3.899 27.823 200.0 3.653 35.009 1468.6 27.821 32.405 3.720 27.829 220.1 3.490 35.000 1468.0 27.836 32.193 3.475 27.840 240.0 3.395 35.000 1468.0 27.836 32.193 3.475 27.849 260.0 3.577 35.008 1468.2 27.855 32.117 3.360 27.857 380.0 3.098 34.991 1467.3 27.868 31.864 3.030 27.870 300.1 2.954 34.982 1467.0 27.875 31.738 2.935 27.877 320.0 2.920 34.998 1467.3 27.875 31.738 2.935 27.877 320.0 2.920 34.998 1467.3 27.891 31.731 2.900 27.893 340.1 2.751 34.988 1466.8 27.898 31.531 2.730 27.900 360.1 2.136 34.937 1464.4 27.910 31.007 2.116 27.912 380.1 2.128 34.966 1464.8 27.938 30.847 1.899 27.940 450.1 1.305 34.925 1462.2 27.968 30.311 1.282 27.966 500.0 0.794 34.914 1460.7 27.938 30.847 1.899 27.940 450.1 1.305 34.925 1462.2 27.964 30.311 1.282 27.966 500.0 0.794 34.914 1460.7 27.938 30.847 1.899 27.940 450.1 0.499 34.504 1460.2 28.000 29.641 0.474 28.092 600.0 0.274 34.906 1460.0 28.015 29.471 0.248 28.017 650.0 0.076 34.897 1459.9 28.019 29.316 0.048 28.021 700.1 -0.175 34.889 1459.6 28.026 29.117 -0.304 28.027 757.0 -0.133 34.905 1460.6 28.036 29.118 -0.164 28.038 81.0 -0.258 34.905 1460.6 28.036 29.118 -0.164 28.038 81.0 -0.258 34.905 1460.6 28.036 29.118 -0.164 28.038 160.0 30.504 0.090 29.679 0.093 29.482 0.096 28.716 0.098 28.179 0.101 0.107 27.244 26.518 0.112 25.923 0.117 24.668 24.085 0.123 0.127 22.650 0.132 22.032 0 37

75°.0 -0.133 34.905 1460.6 28.036 29.188 -0.164 28.038 8LU.0 -0.258 34.905 1460.9 28.042 29.103 -0.291 28.044

850.0 -0.371 34.905 1461.2 28.048 29.025 -0.405 28.050

900.5 -0.453 34.902 1461.6 28.050 28.978 -0.489 28.052 950.0 -0.526 34.902 1462.1 28.053 28.937 -0.564 28.055 1000.0 -0.554 34.904 1462.8 28.056 28.937 -0.594 28.053

20.482

18.319

17.824

14.904

12.723

10.685

8.978

8.265 7.155

6.244 5.351

4.484

4.100

3.551

3.115

0.141

0.145

0.148

0.157

0.163

0.169

0.174 0.179

0.183

0.186 0.189

0.191

0.193

STA. 042S 72-15.5N 001-46.1E 08/19/90 23.1 HRS GMT, 1000 RECORDS WIND KNOTS/DIR 004/110, AIR TEMP. 10.0° C, DEW PT 7.8°C, DEPTH 2522 M

PRESS	TEMP	SAL'TY	SNDSPD	SIG-T	COND	THETA	SIGTH	SVA	DYNDTH
DBAR	°C	PSU	m/s	kg/m³	dS/m	°C	kg/m³	×108	DYN M
3.0 5.0	23135099808529764470542835336615489353893851360850008378508526108015999877991801000083785136641592157796166878422573377653838470000000000000000000000000000000000	16567652693999011198787843459995788844677246 090000099685999011098647843459995788844677246 54.5.5.5.5.5.5.5.5.5.5.5.5.5.5.5.5.5.5.	21078888912749200000000000000000000000000000000000	26.899 26.991 26.993 26.993 26.993 26.993 26.993 27.15 27.15 27.15 27.16 27.16 27.16 27.16 27.16 27.16 27.16 27.16 27.16 27.17 27.17 27.17 27.17 27.17 27.17 27.18 27	38.41810462491866600033088.1149188.1149188.1149188.3388.3388.3383333333333333333333333	10.10.0029 10.10.003038758855226442005035018987503030501897504851467330551829642005018000000000000000000000000000000000	26.9138316966.99513883169966.9951388.015966.99513883169966.99513883169966.9951388316996688917.7777.7777.778880799912222222222222222222222222222222222	13.639876118 13.639876118 13.65118 11.0.5188770 11.0.518870 11.0.518870 11.0.518870 11.0.518870 11.0.518870 11.0.518870 11.0.518870 11.0.518870 11.0.518870 11.0.518870 11.0.518870 11.0.518870 11.0	0.000000000000000000000000000000000000

STA. 042D 72-15.6N 001-47.2E 08/19/90 23.1 HRS GMT, WIND KNOTS/DIR 000/110, AIR TEMP. 10.0° C, DEW PT 7.8°C, 725 RECORDS **DEPTH 2522 M** TEMP SAL'TY SNDSPD SIG-T COND DYNDTH PRESS THETA SIGTH SVA ٥C ŏς ×108 kg∕m³ DBAR PSU m/s dS/m kg/m³ DYN M 1005.0 -0.527 34.907 1463.0 28.057 28.964 -0.568 28.059 1050.1 -0.557 34.907 1463.6 28.059 28.959 -0.599 28.061 0.000 3.074 1050.1 -0.557 34.907 1463.6 28.059 28.959 -0.599 1100.0 -0.603 34.906 1464.2 28.060 28.941 -0.647 2.761 0.001 28.063 2.415 0.003 1150.1 -0.632 34.906 1464.9 28.061 28.938 -0.679 28.064 0.004 2.122 28.938 -0.708 1200.0 -0.658 34.908 1465.6 28.064 28.066 1.726 0.005 1250.1 -0.686 34.908 1466.3 28.065 28.935 -0.738 28.068 1.438 0.006 1300.1 -0.723 34.906 1467.0 28.065 28.924 -0.777 28.068 1350.0 -0.752 34.907 1467.7 28.068 28.921 -0.809 28.071 1400.1 -0.770 34.908 1468.4 28.069 28.928 -0.829 28.072 1.170 0.006 0.748 0.007 0.481 0.007 1450.0 -0.776 34.907 1469.3 28.069 28.944 -0.837 28.072 1500.1 -0.794 34.907 1470.0 28.069 28.949 -0.858 28.072 1550.0 -0.807 34.908 1470.8 28.070 28.960 -0.874 28.074 0.349 0.007 0.117 0.007 -0.134 0.007 1600.1 -0.823 34.909 1471.5 28.072 28.968 -0.892 28.075 1650.0 -0.835 34.908 1472.3 28.072 28.978 -0.907 28.075 1700.1 -0.852 34.907 1473.1 28.072 28.983 -0.927 28.075 1750.1 -0.868 34.908 1473.9 28.073 28.991 -0.946 28.077 1800.0 -0.872 34.907 1474.7 28.073 29.008 -0.953 28.076 1850.0 -0.877 34.907 1475.5 28.072 29.024 -0.960 28.076 -0.457 0.007 -0.633 0.007 -0.815 0.007 -1.1080.006 0.006 -1.200 -1.3140.005 1900.0 -0.888 34.907 1476.3 28.073 29.035 -0.975 28.077 -1.561 0.004 1950.1 -0.892 34.906 1477.1 28.073 29.052 -0.981 28.077 2000.0 -0.899 34.906 1477.9 28.073 29.065 -0.992 28.077 2050.0 -0.906 34.907 1478.7 28.074 29.080 -1.001 28.078 -1.658 0.003 -1.8110.002 -2.038 0.002 2100.0 -0.911 34.906 1479.5 28.073 29.096 -1.010 28.078 2150.1 -0.914 34.906 1480.4 28.073 29.113 -1.016 28.078 -2.144 0.000 -2.286 - 0.0012200.1 -0.915 34.905 1481.2 28.073 29.132 -1.020 -2.366 -0.002 28.077 2250.0 -0.917 34.906 1482.1 28.073 29.150 -1.026 28.078 2300.1 -0.916 34.905 1482.9 28.073 29.171 -1.028 28.078 2350.2 -0.916 34.905 1483.8 28.073 29.191 -1.032 28.078 -2.536 - 0.003-2.623 - 0.004-2.733 -0.006 2400.0 ~0.915 34.905 1484.6 28.073 29.211 -1.034 28.078 2450.0 ~0.913 34.905 1485.5 28.073 29.232 -1.036 28.078 -2.821 - 0.007

-2.917 - 0.009

STA. 043 72-30.6N 002-15.5E 08/20/90 3.1 HRS GMT, 1002 RECORDS WIND KNOTS/DIR 006/030, AIR TEMP. 9.4° C, DEW PT 8.9°C, DEPTH 1980 M

PRESS DBAR	TEMP °C	SAL'TY PSU	SNDSPD m/s	SIG-T kg/m³	COND ds/m	THETA °C	SIGTH kg/m³	SVA ×108	DYNDTH DYN M
0.03 0.03 0.03 0.03 0.03 0.00 113.00 11	8.88.7.66517.346631088.88.88.88.88.88.88.88.88.88.88.88.88.	33333333333333333333333333333333333333	344519901111613111563108202289822779973696123226501114738407 555555444444374299909090909090909090909090909090909090	26.9936 26.9936 26.9936 27.0455 27.0656 27.0736 27.0736 27.0736 27.0736 27.0736 27.0736 27.0736 27.0736 27.0736 27.0736 27.0736 27.0736 27.0736 27.0736 27.0736 27.0736 27.0736 27.0736 27.0969 27.	36.881316.686.7771588813336.6.6716.8861.8861.8861.8861.8861.8861.8	8.88.87.66.57.09.59.88.88.88.88.88.88.88.88.88.88.88.88.88	266.9997 266.9997 266.9997 277.0056 277.0056 277.0099 277.00	x10* 105.489 105.489 105.489 105.489 105.489 105.509 105.509 101.510 1	001357923579136900000000000000000000000000000000000
		34.908						1.646	0.120

STA. 044 72-59.4N 002-59.6E 08/20/90 9.1 HRS GMT, 1000 RECORDS WIND KNOTS/DIR 016/005, AIR TEMP. 9.4° C, DEW PT 7.2°C, DEPTH 2600 PT DEPTH 2600 M TEMP SAL'TY SNDSPD SIG-T COND °C PSU m/s kg/m³ dS/m THETA SIGTH PRESS SVA DYNDTH οC °C kg/m³ DBAR $\times 10^8$ DYN M 8.027 34.778 1482.3 27.095 36.025 8.010 34.788 1482.2 27.105 36.019 8.023 34.787 1482.3 27.103 36.031 8.027 27.096 95.728 2.0 0.002 8.010 27.106 8.022 27.103 3.0 94.796 0.003 95.066 5.0 0.005 8.048 34.783 1482.4 27.096 36.050 7.998 34.790 1482.3 27.109 36.012 7.984 34.795 1482.3 27.115 36.004 8.047 27.096 7.997 27.110 95.783 0.007 94.549 0.009 7.984 34.795 1482.3 27.115 36.004
7.854 34.798 1481.8 27.137 35.888
7.736 34.830 1481.5 27.179 35.810
7.573 34.842 1480.9 27.213 35.671
7.321 34.880 1480.0 27.278 35.474
6.889 34.933 1478.4 27.381 35.125
6.502 34.930 1477.0 27.432 34.767
5.489 35.039 1477.1 27.432 34.767
5.489 35.022 1472.1 27.666 33.939
5.230 35.022 1472.1 27.666 33.690
5.142 35.032 1471.8 27.684 33.619
5.087 35.027 1471.6 27.686 33.566
4.813 35.022 1470.5 27.714 33.316
4.627 35.015 1469.8 27.729 33.144
4.460 35.009 1469.2 27.744 32.991
4.183 34.991 1468.1 27.759 32.729
3.999 34.990 1467.5 27.778 32.567
3.842 34.999 1466.7 27.801 32.438
3.725 34.999 1466.7 27.813 32.338 7.983 27.115 11.0 94.045 0.010 7.852 27.138 7.734 27.180 7.572 27.213 13.1 91.962 0.012 15.1 17.0 87.985 0.014 84.872 0.016 7.372 27.213 7.320 27.239 6.887 27.382 6.499 27.432 5.487 27.648 5.228 27.666 5.139 27.684 5.084 27.687 19.0 78.655 0.017 21.1 68.939 0.019 23.0 64.186 0.020 25.2 43.735 0.022 42.008 0.022 29.0 40.335 0.023 40.079 31.0 0.024 4.810 27.715 4.624 27.730 4.457 27.744 35.0 37.459 0.025 40.0 36.086 0.027 45.1 34.770 0.029 4.180 27.760 3.995 27.779 3.837 27.802 3.720 27.814 50.0 33.303 0.031

 60.0
 3.999
 34.990
 1467.5
 27.778
 32.567
 3.995
 27.779

 70.0
 3.842
 34.999
 1467.1
 27.801
 32.438
 3.837
 27.802

 80.0
 3.725
 34.999
 1466.7
 27.813
 32.338
 3.720
 27.814

 90.0
 3.628
 35.003
 1466.5
 27.827
 32.260
 3.622
 27.828

 100.0
 3.638
 35.016
 1466.7
 27.836
 32.284
 3.631
 27.837

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 3.510
 35.009
 1466.3
 27.849
 32.111
 3.433
 27.850

 130.0
 3.441
 35.008
 1466.4
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 3.439
 27.860

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 3.448
 35.021
 1466.6
 27.879
 32.159
 3.448
 27.868

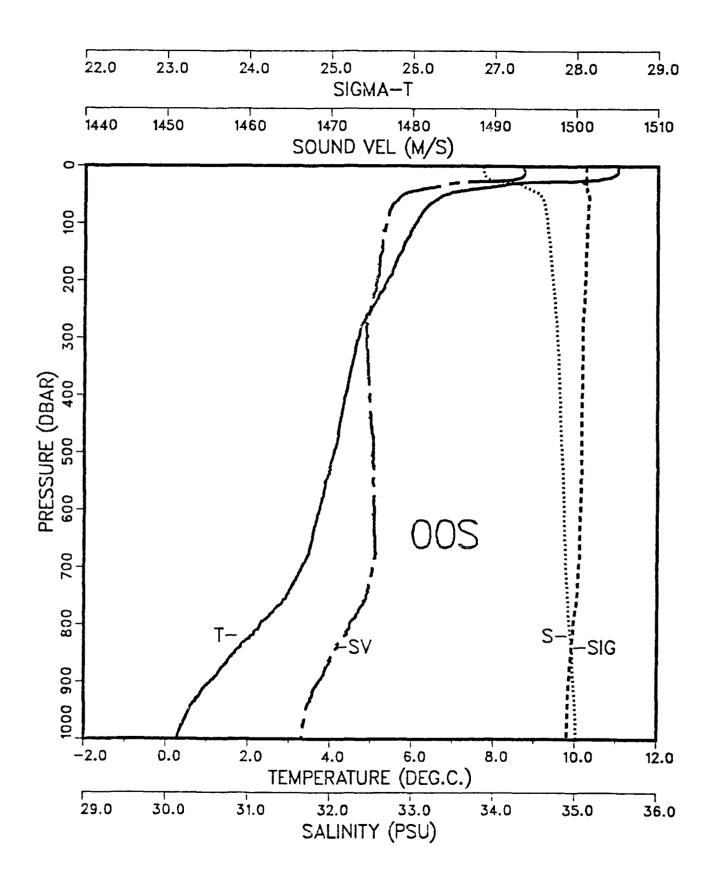
 160.5
 3.537
 35.037
 1467.1
 27.872
 32.161
 3.445
 35.037
 1467.1
 27.872
 32.161
 3.433
 27.874

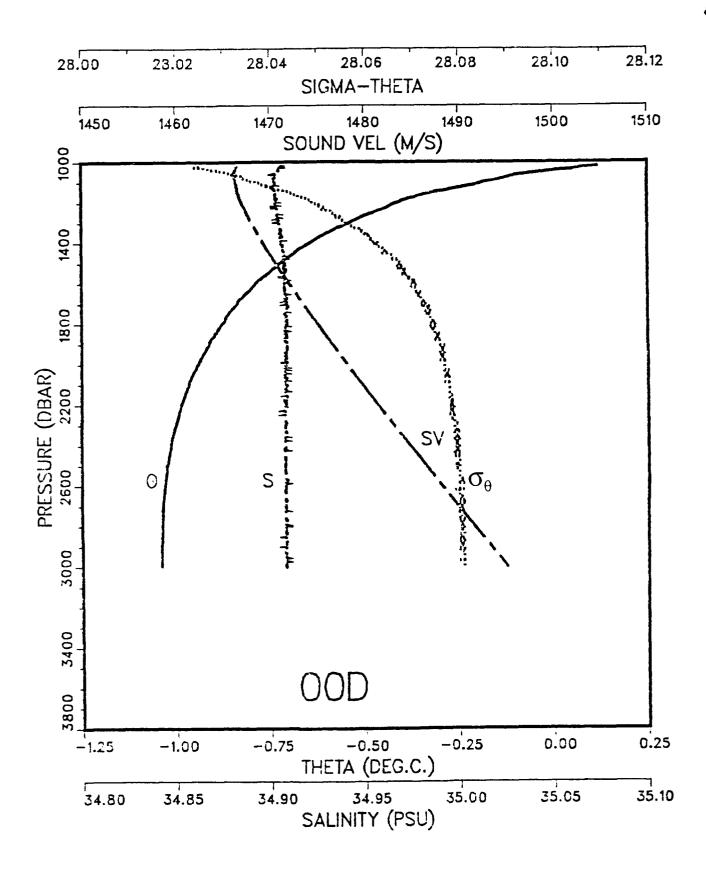
 170.0
 3.445
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 1466.7
 27.884
 31.994
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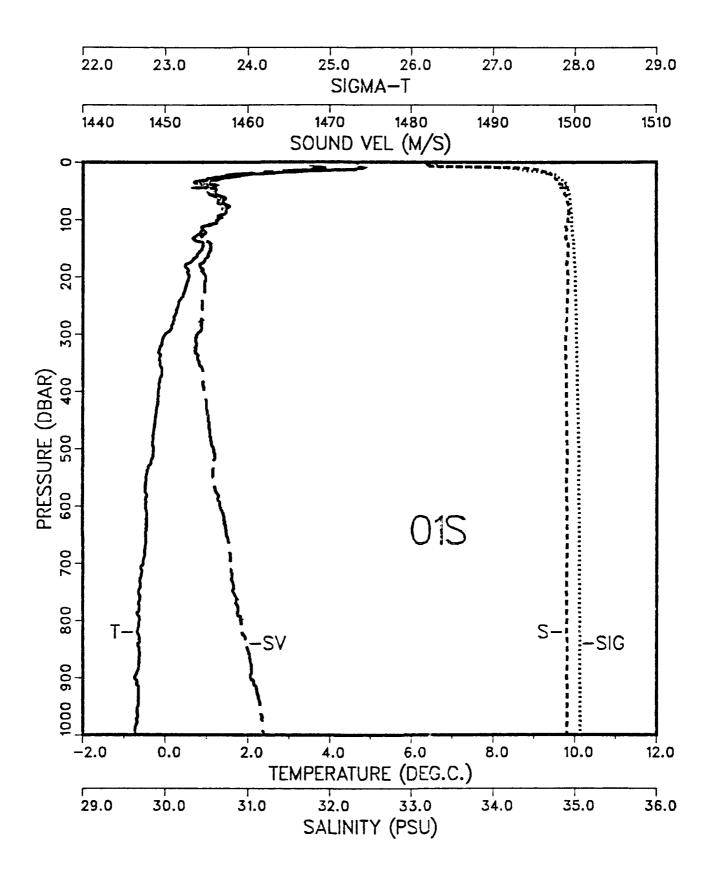
 60.0 0.034 31.634 70.0 29.504 0.037 28.414 0.040 27.214 0.043 26.464 0.045 25.828 0.048 25.334 0.051 25.016 0.053 24.565 0.056 23.917 0.058 23.712 0.061 23.597 0.063 22.898 0.065 22.510 0.067 21.549 0.070 20.584 0.074 0.078 19.768 18.068 0.082 16.704 0.085 14.920 0.088 13.636 12.534 0.091 0.094 11.033 0.096 10.224 0.098 9.690 0.100 9.039 0.105 7.979 7.237 0.109 0.113 6.671 0.116 650.0 -0.245 34.902 1458.5 28.040 29.045 -0.271 28.042 700.0 -0.363 34.901 1458.7 28.045 28.966 -0.390 28.047 750.0 -0.431 34.901 1459.2 28.048 28.929 -0.461 28.049 5.721 0.119 5.000 0.122 4.534 0.124 800.0 -0.491 34.900 1459.8 28.050 28.901 -0.522 28.052 850.0 -0.503 34.903 1460.6 28.053 28.914 -0.537 28.055 900.1 -0.578 34.901 1461.0 28.055 28.872 -0.613 28.057 4.097 0.126 3.732 0.128 3.286 0.130 950.0 -0.624 34.901 1461.6 28.057 28.853 -0.661 28.059 1000.0 -0.677 34.901 1462.2 28.059 28.830 -0.716 28.061 2.886 0.132

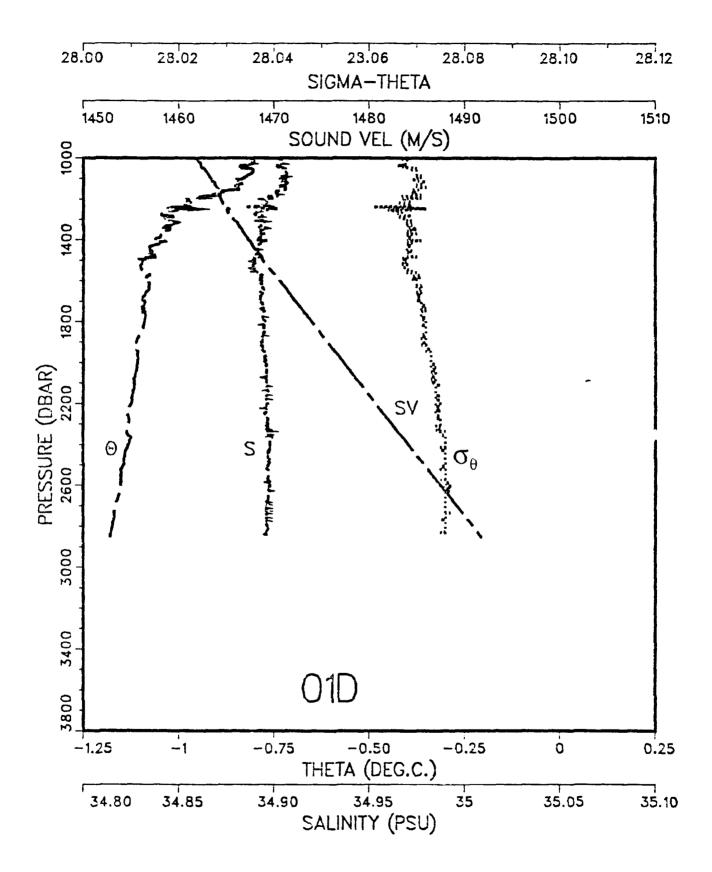
APPENDIX B: GRAPHICAL DATA

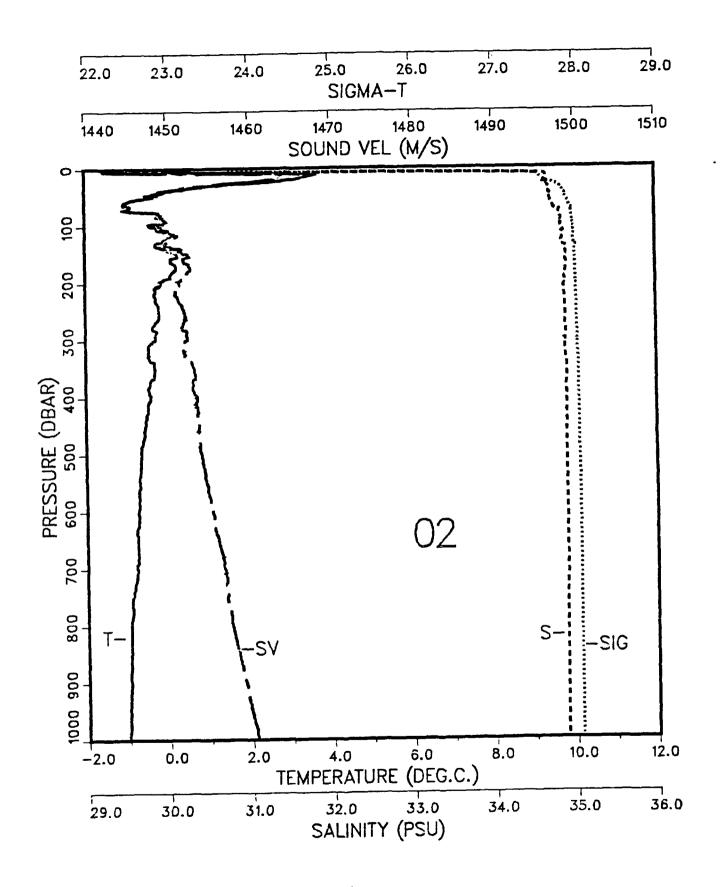
The following pages show salinity, temperature. sound velocity and the density anomaly, σ_t or σ_θ , versus pressure. The plots for the deep lowerings are expanded to better show the very small changes occurring at these depths and the density anomaly is plotted as σ_θ rather than σ_t to give a truer picture of the stability. At these expanded scales, truncation of salinity, temperature and σ_θ at the third decimal place introduces digitization noise which, however, does not detract from the usefulness of the plot.

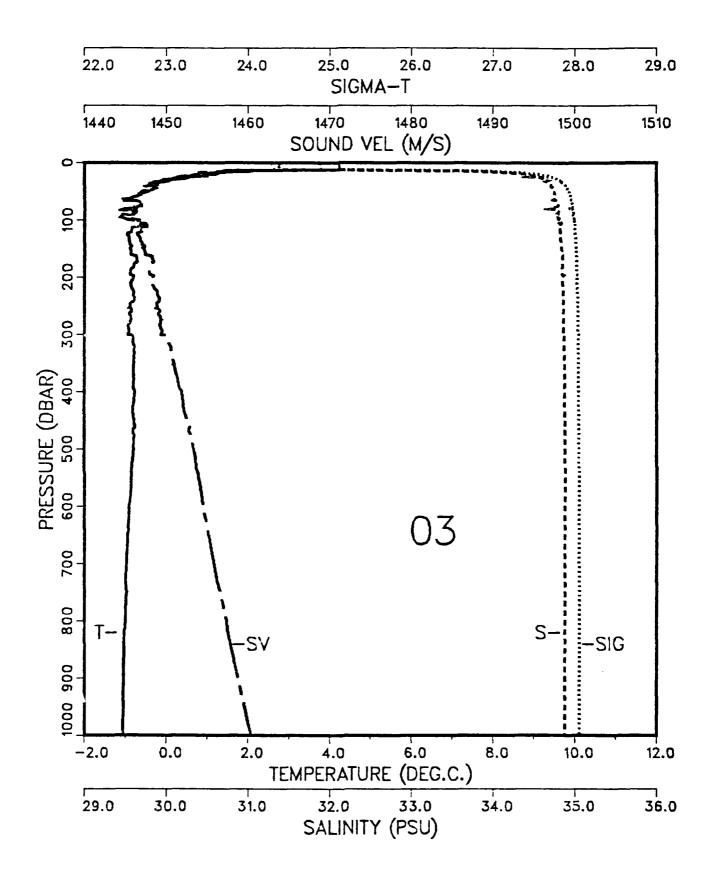


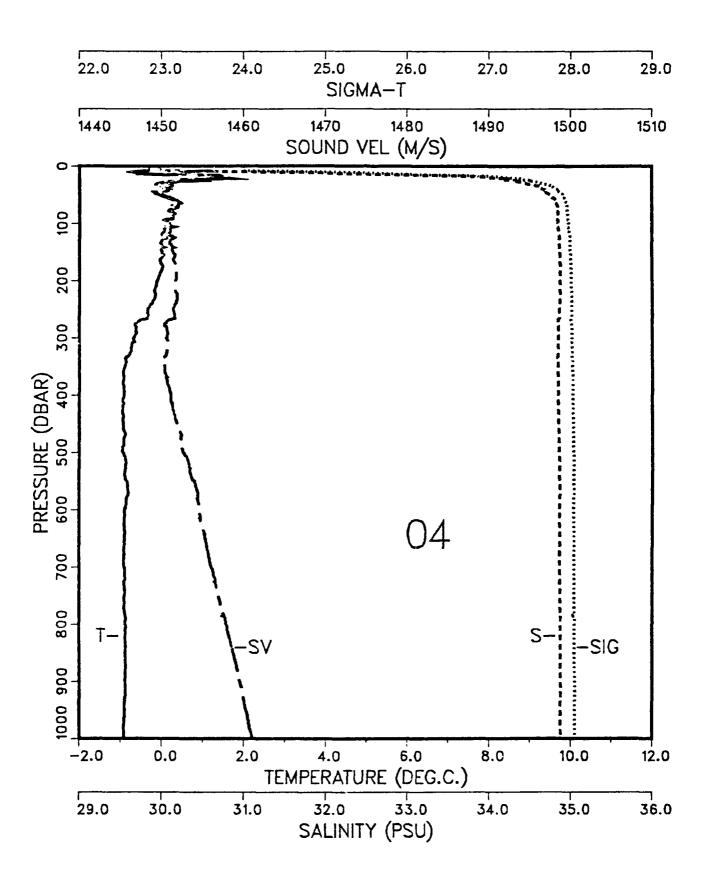


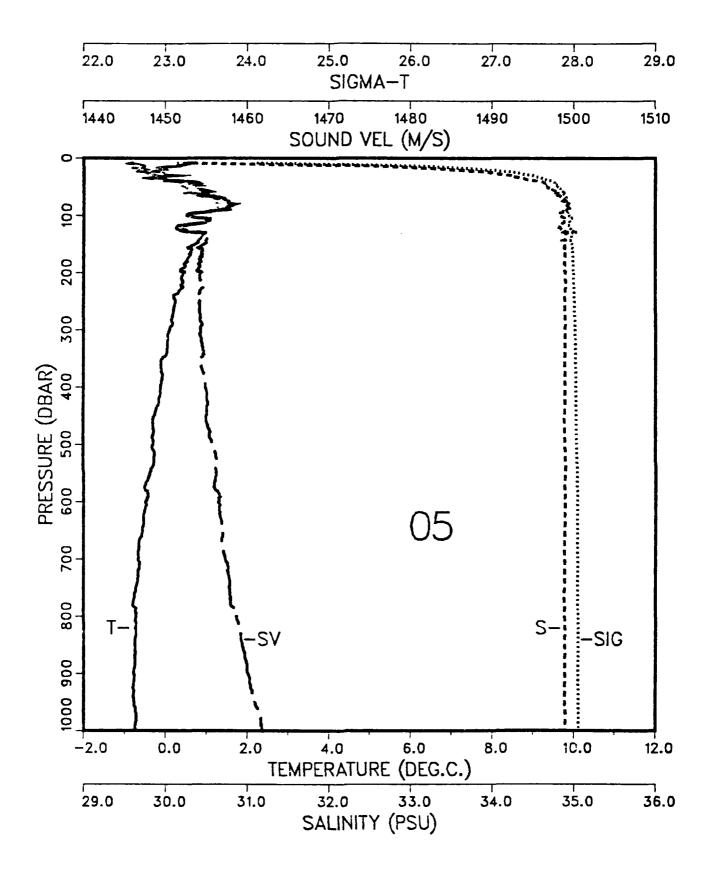


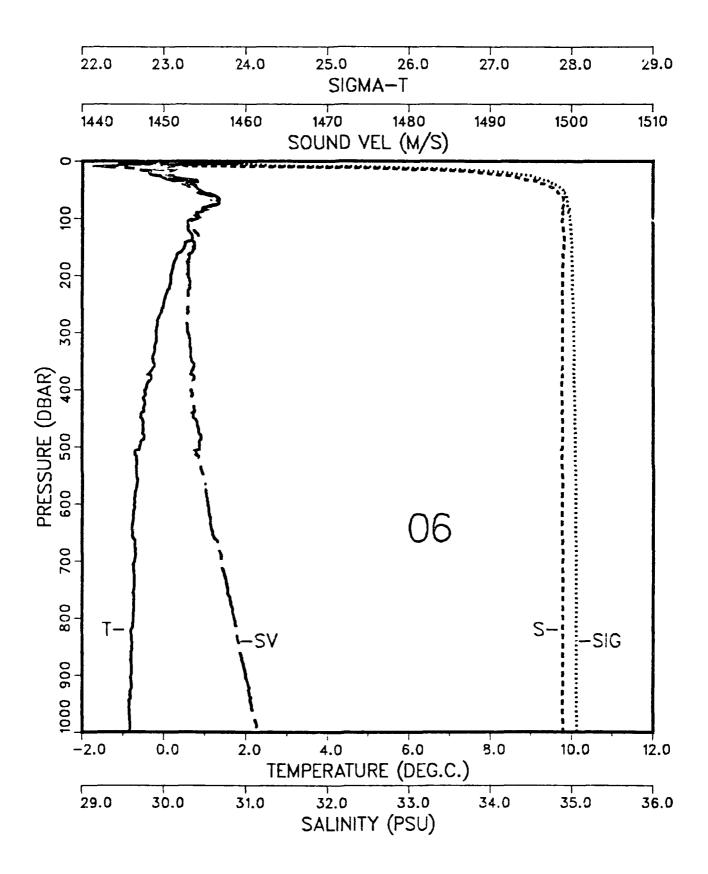


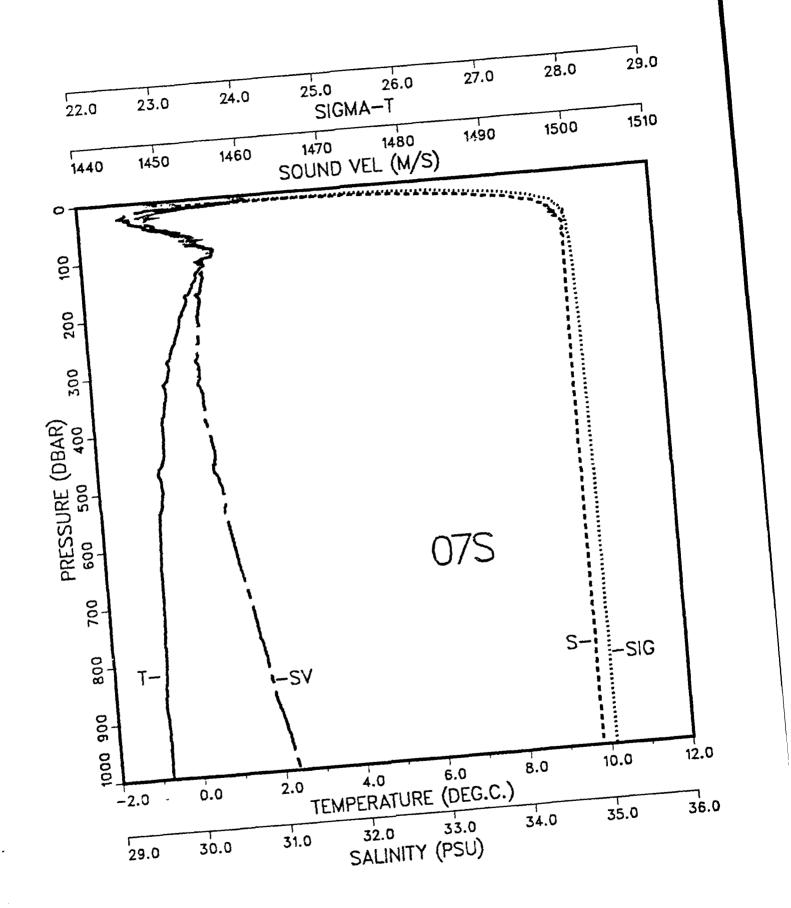


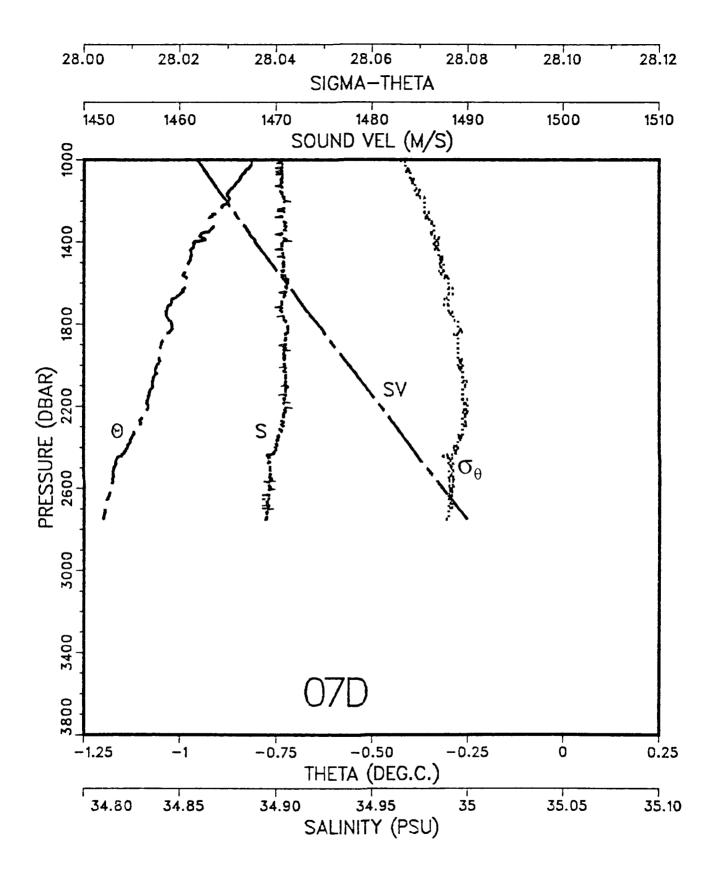


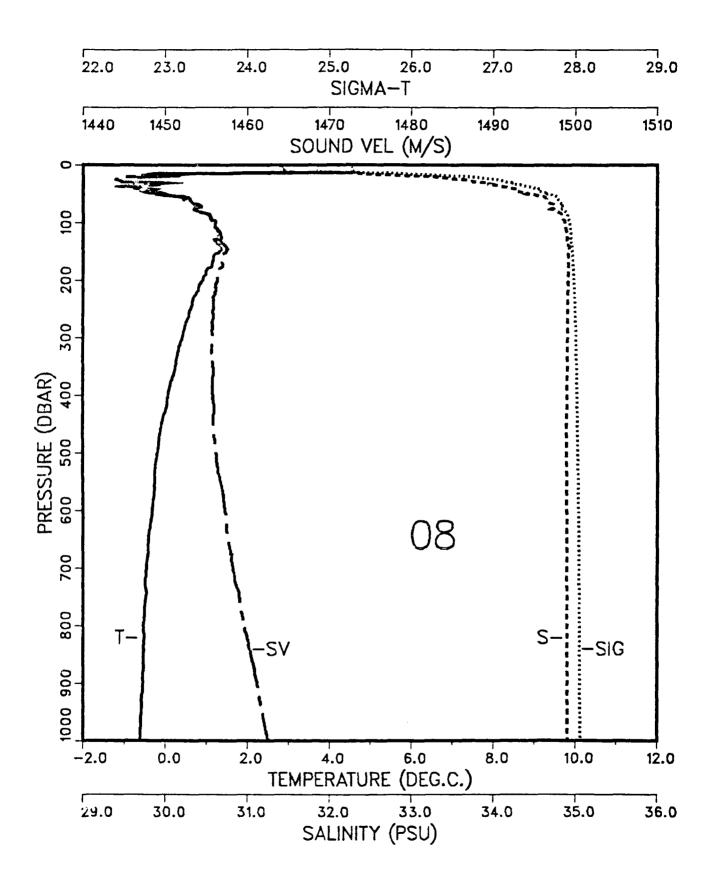


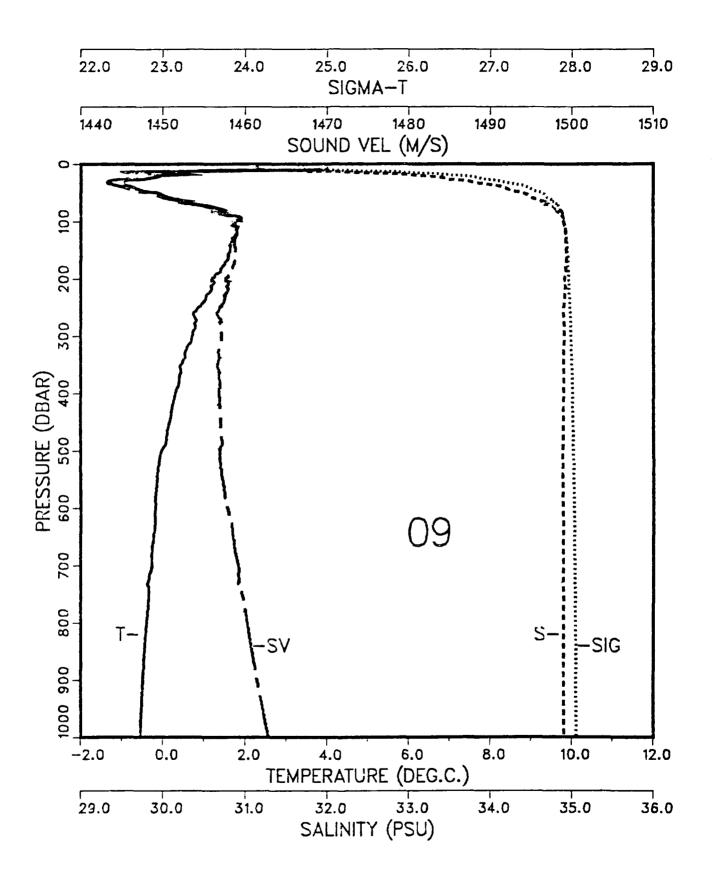


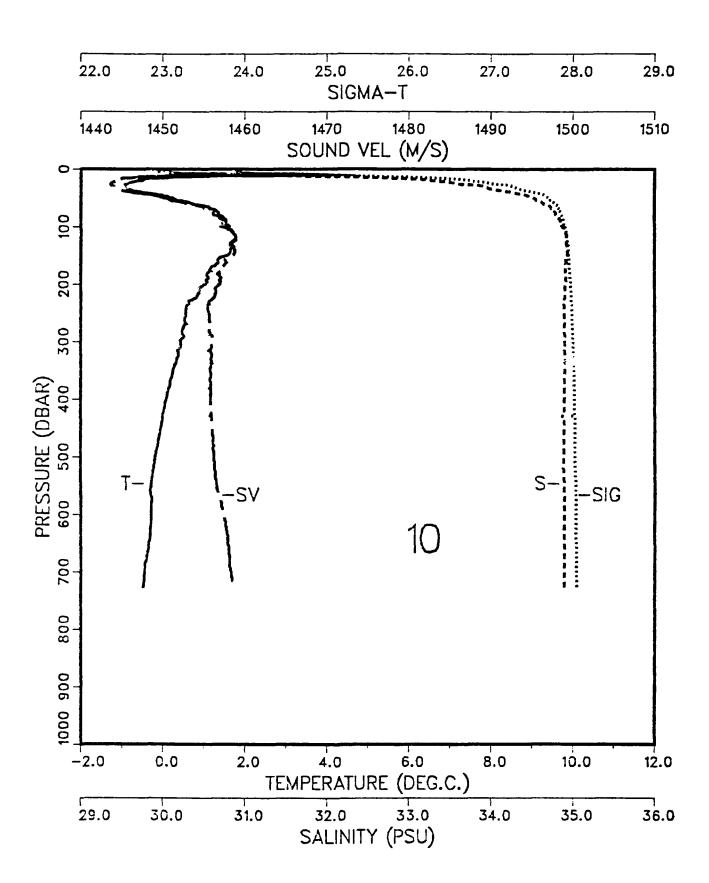


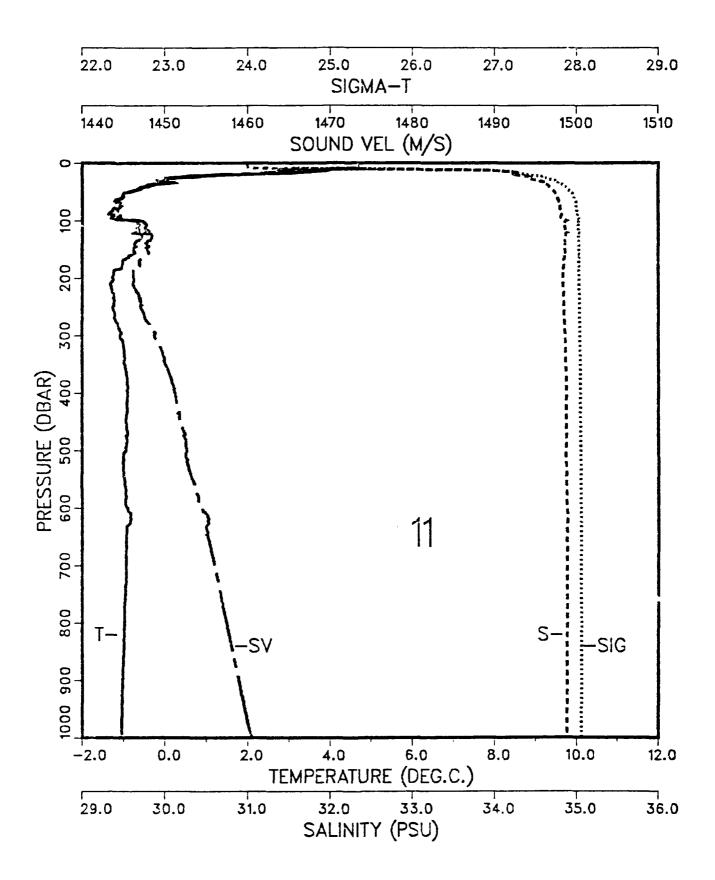


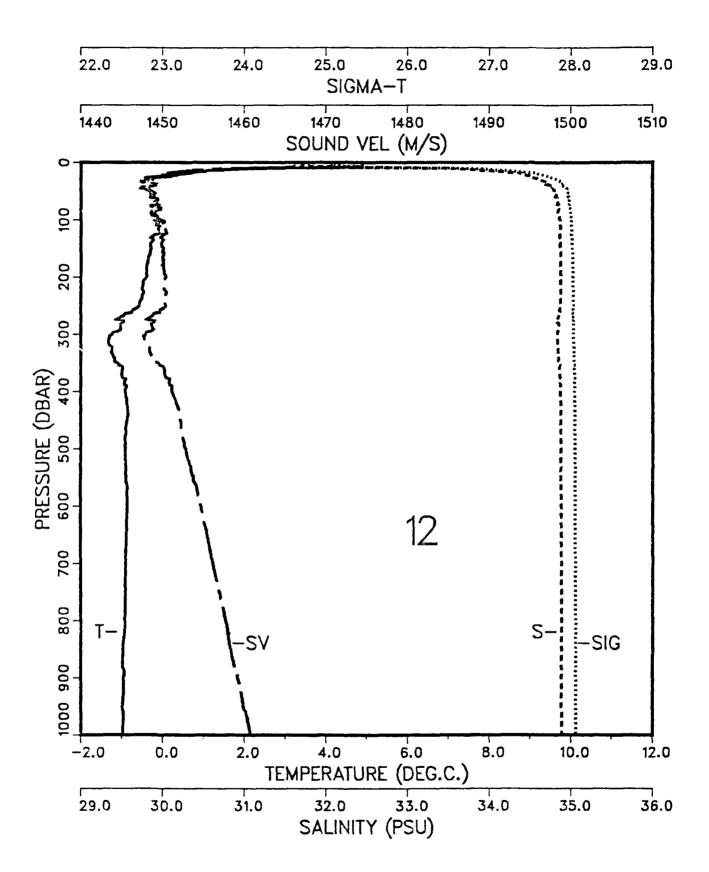


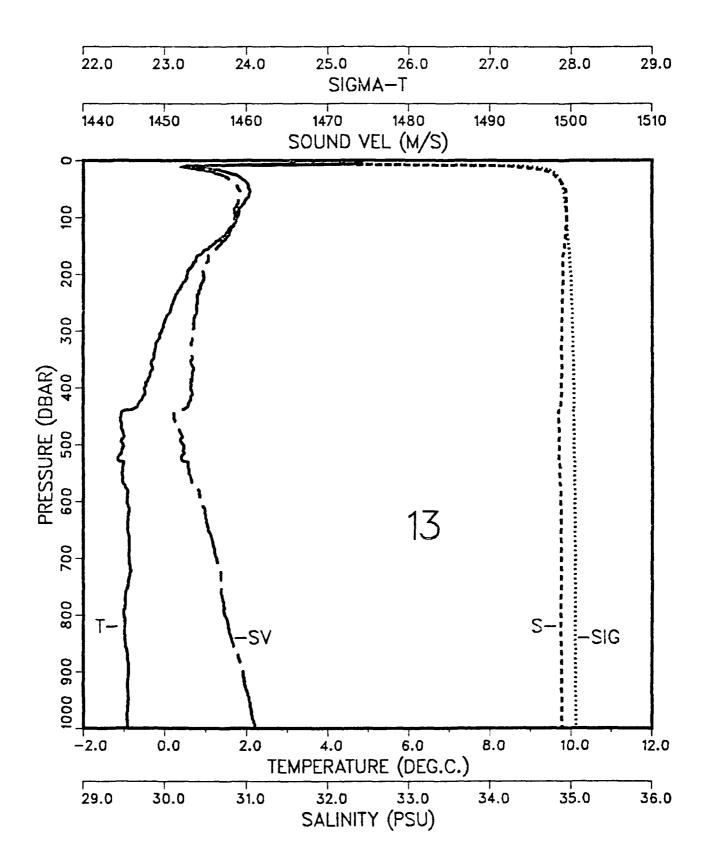


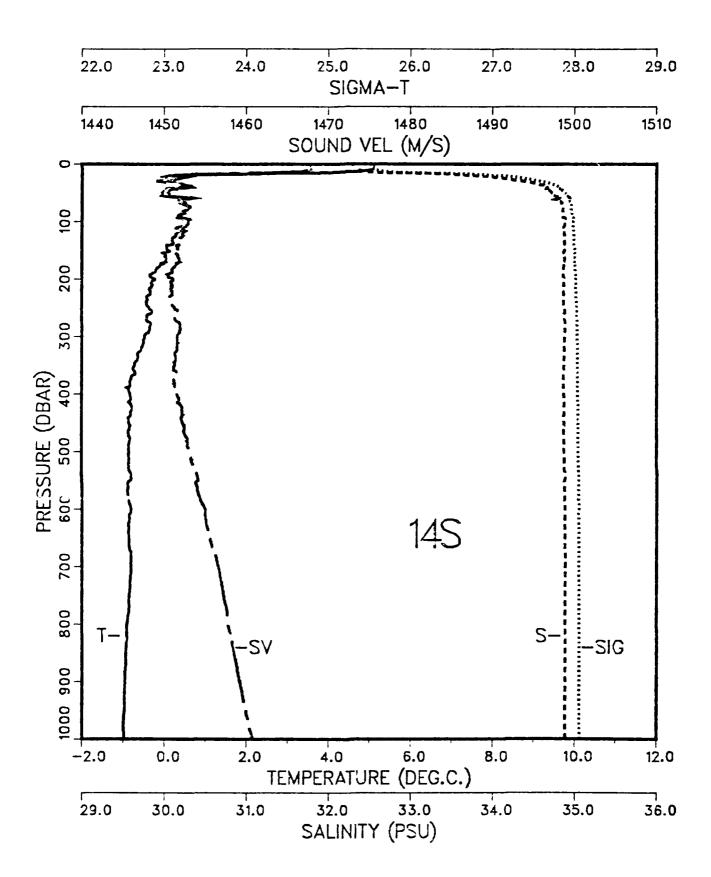


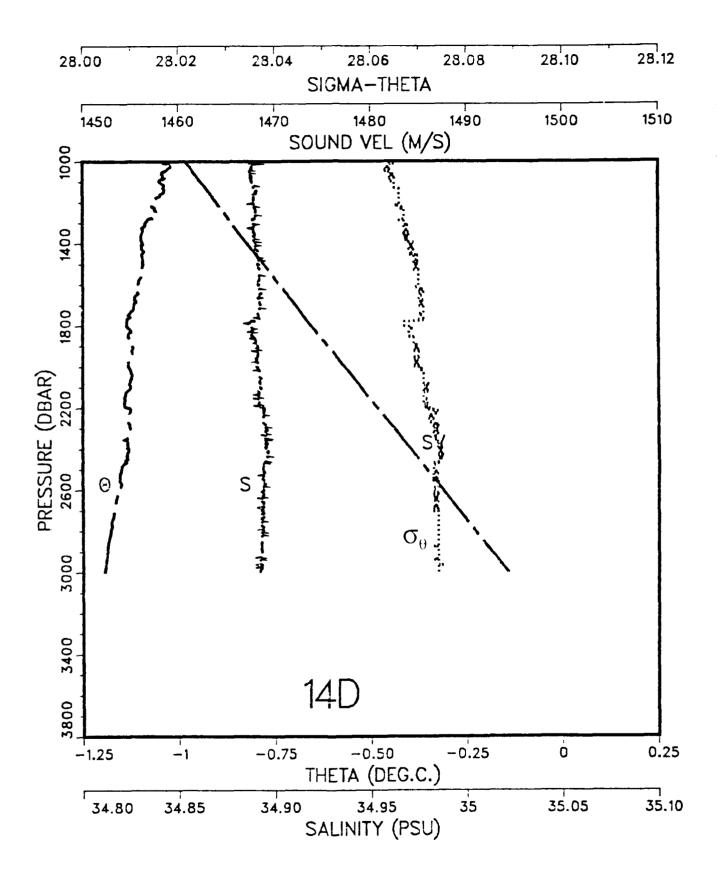


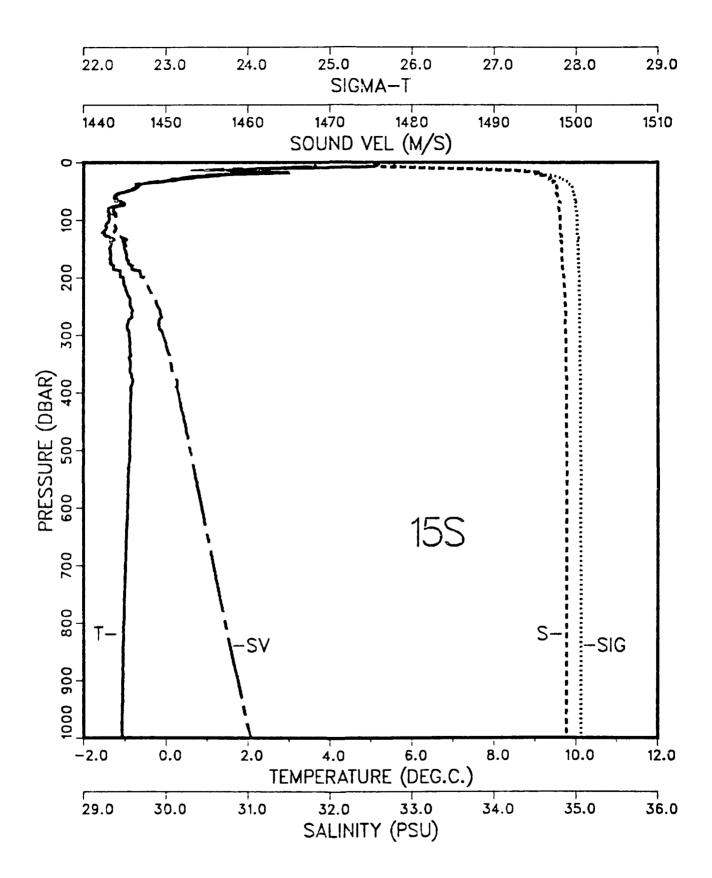


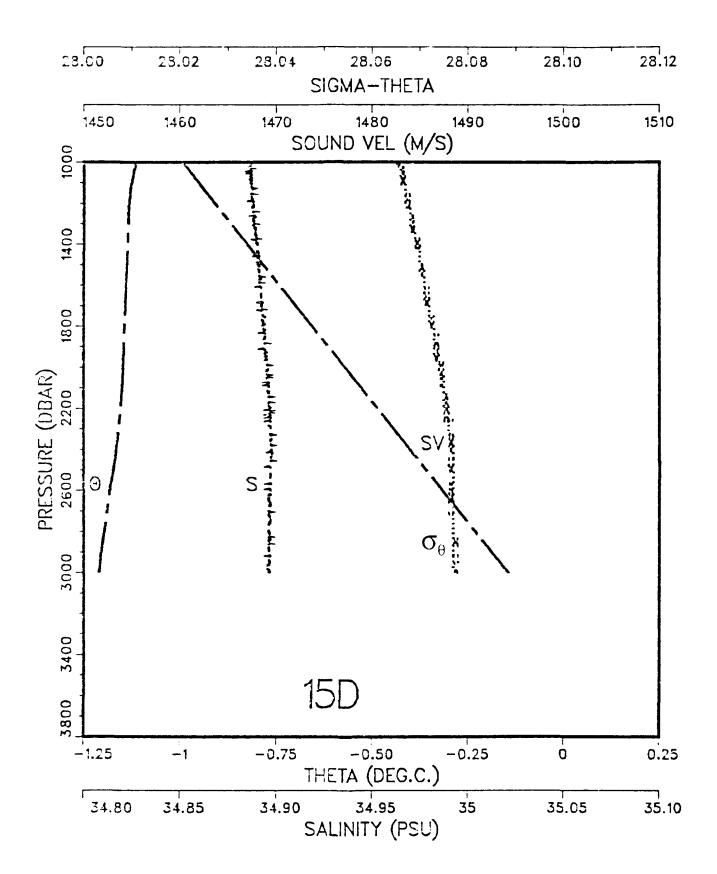


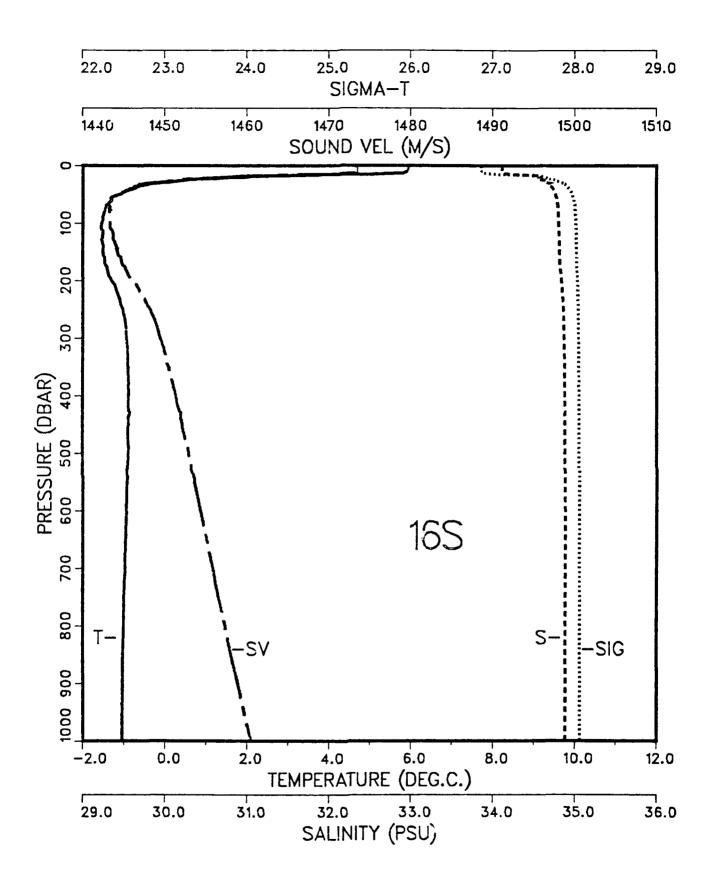


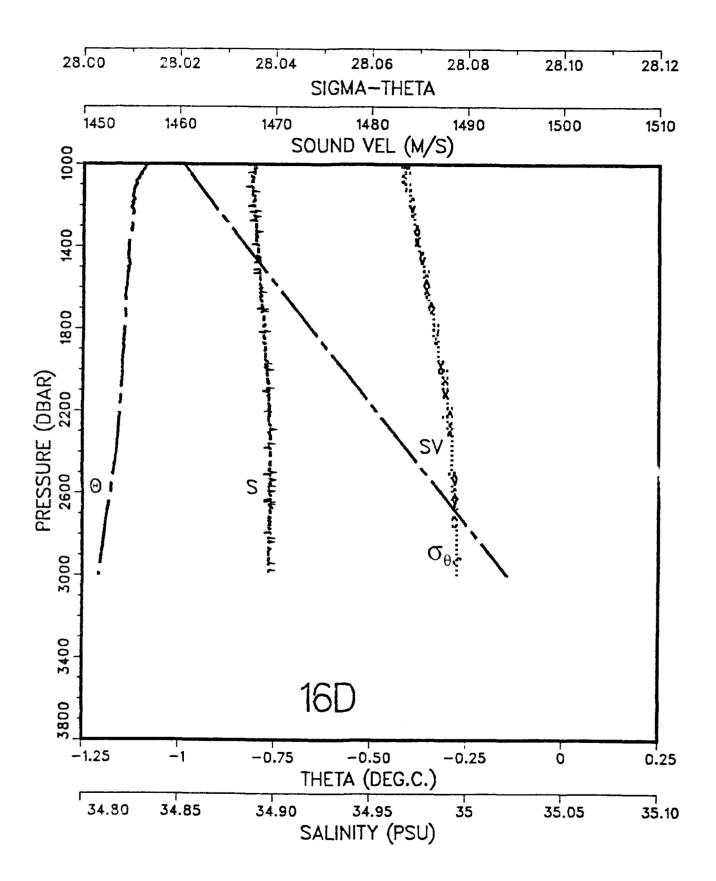


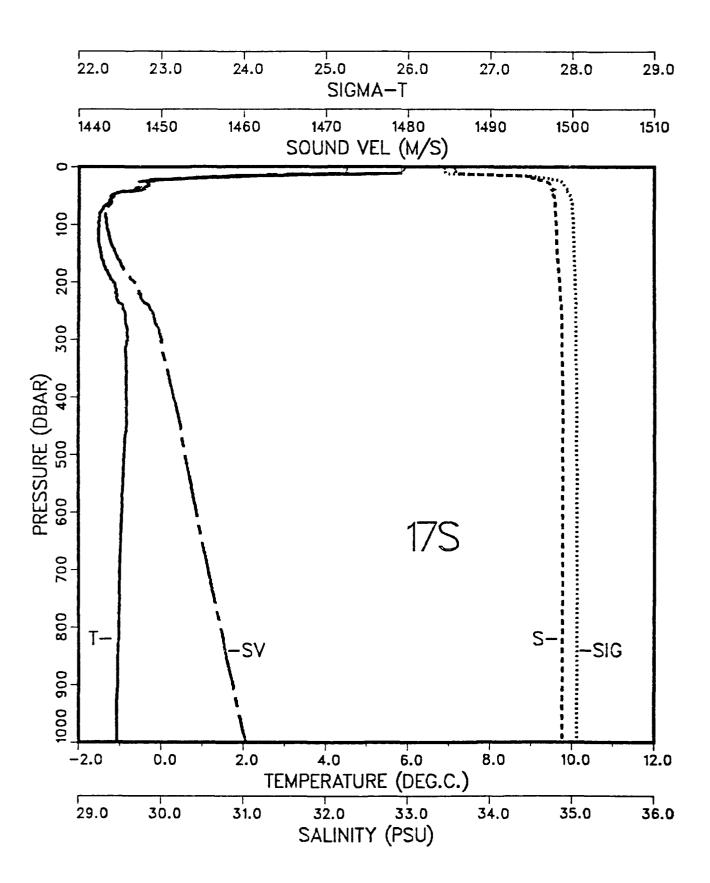


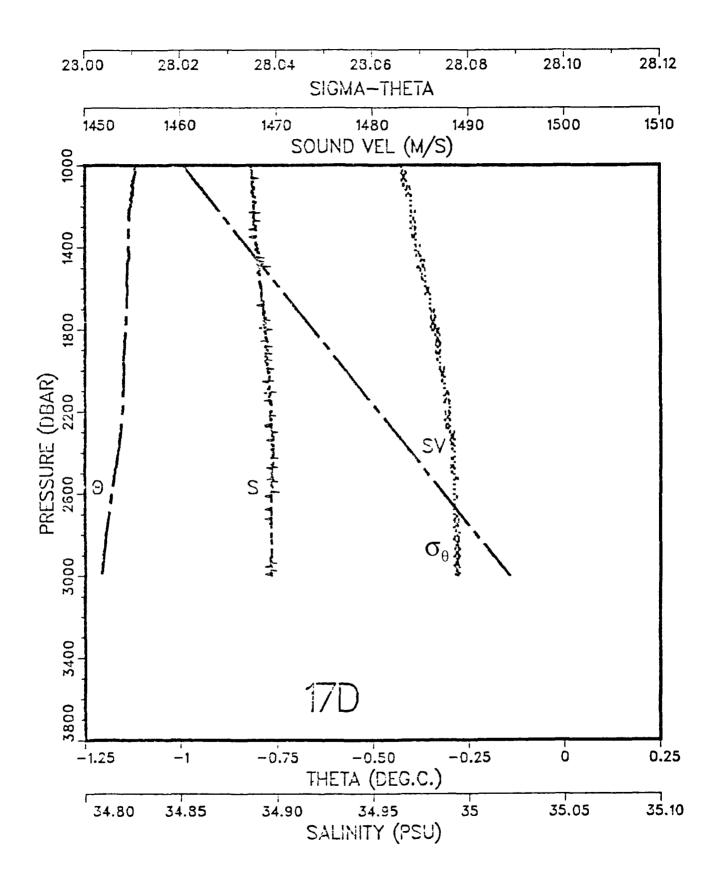


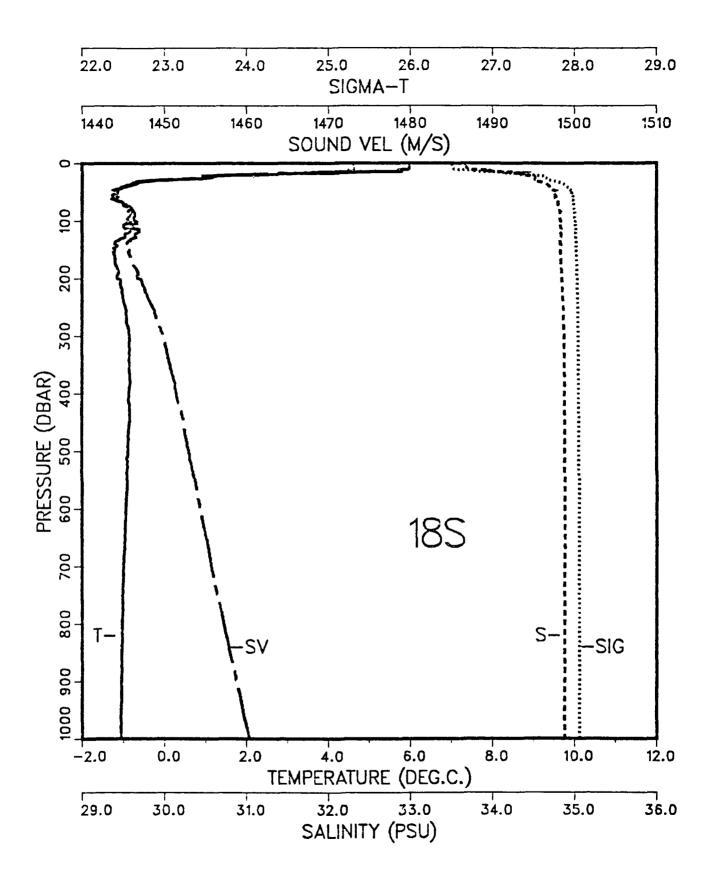


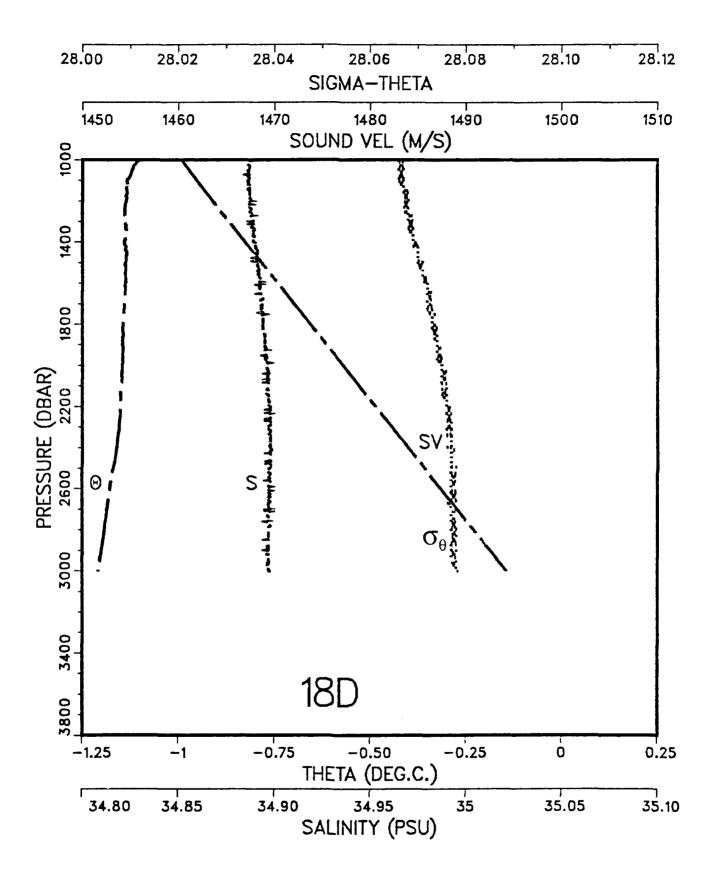


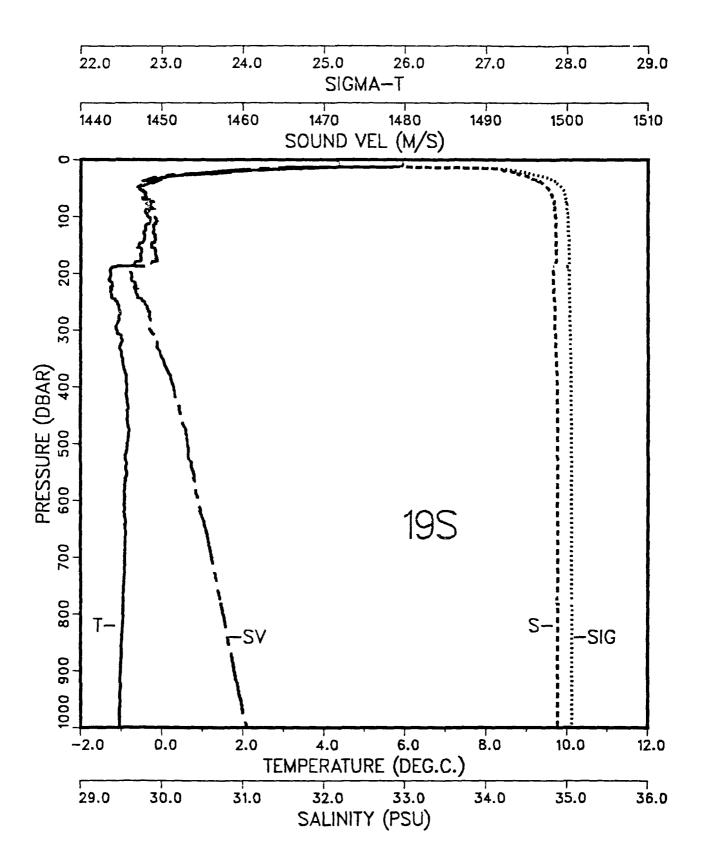


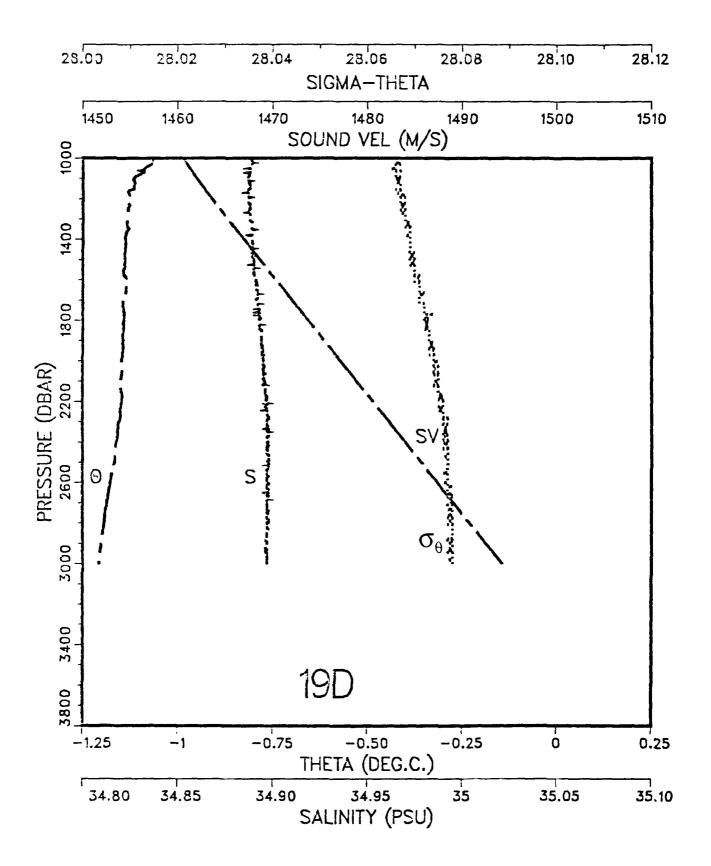


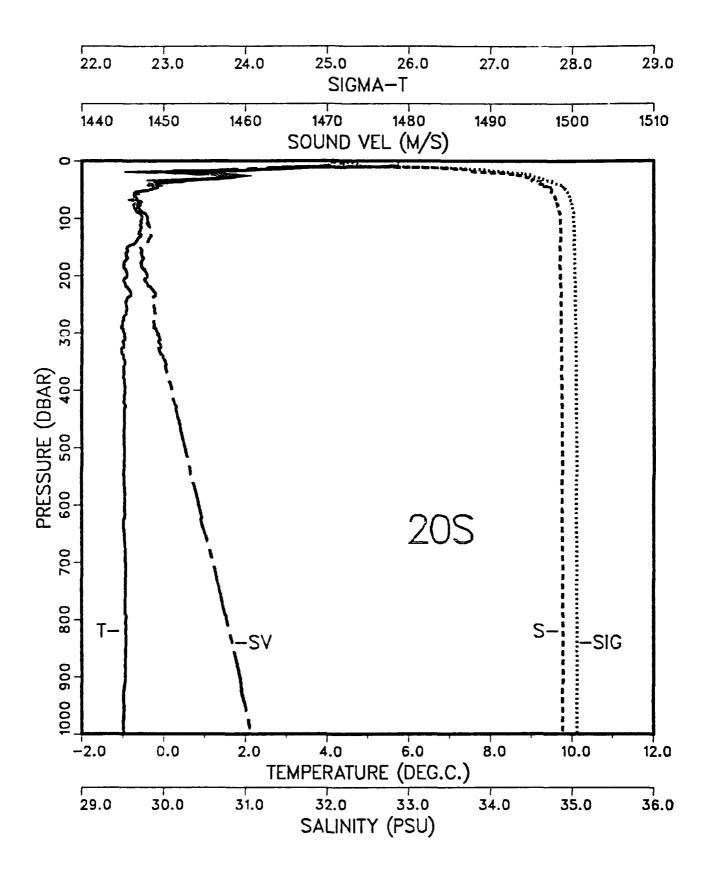


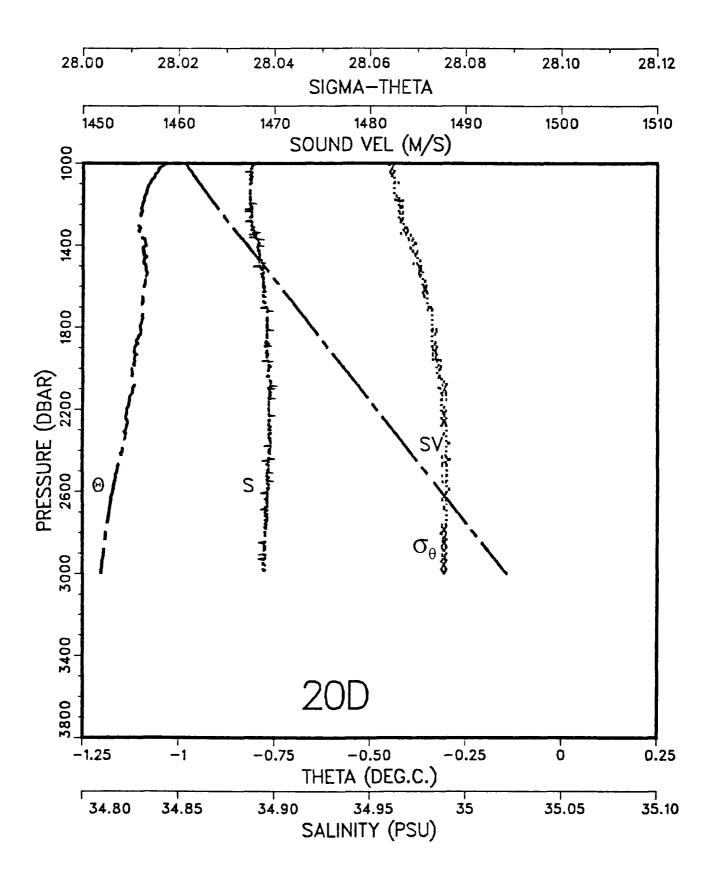


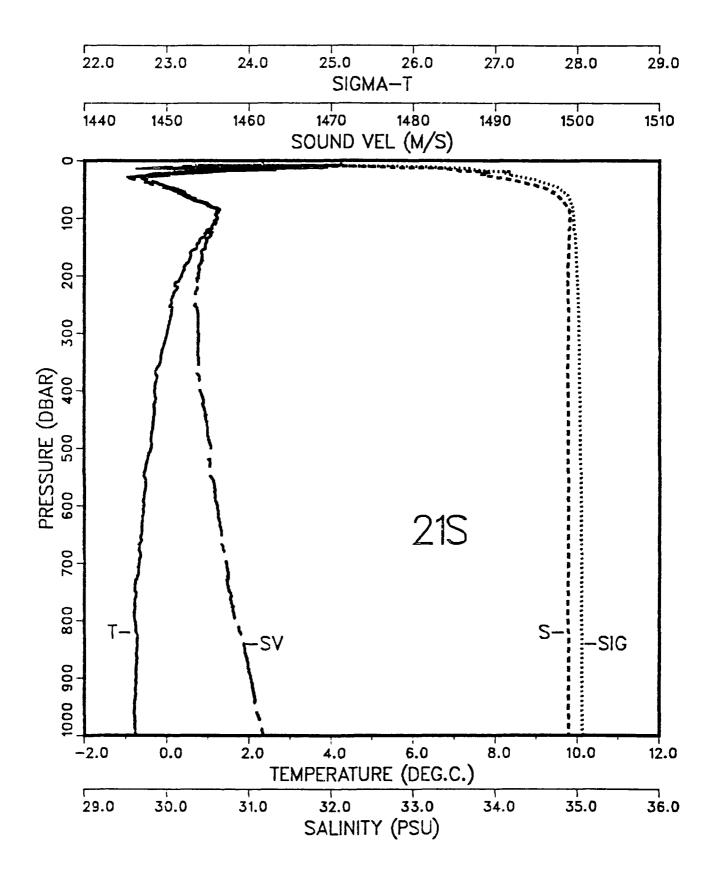


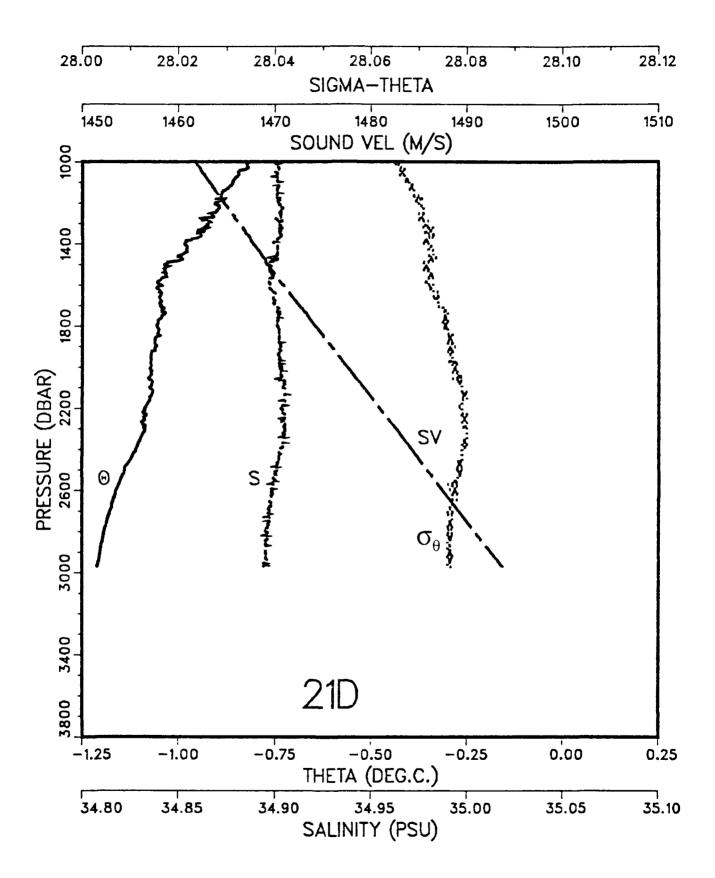


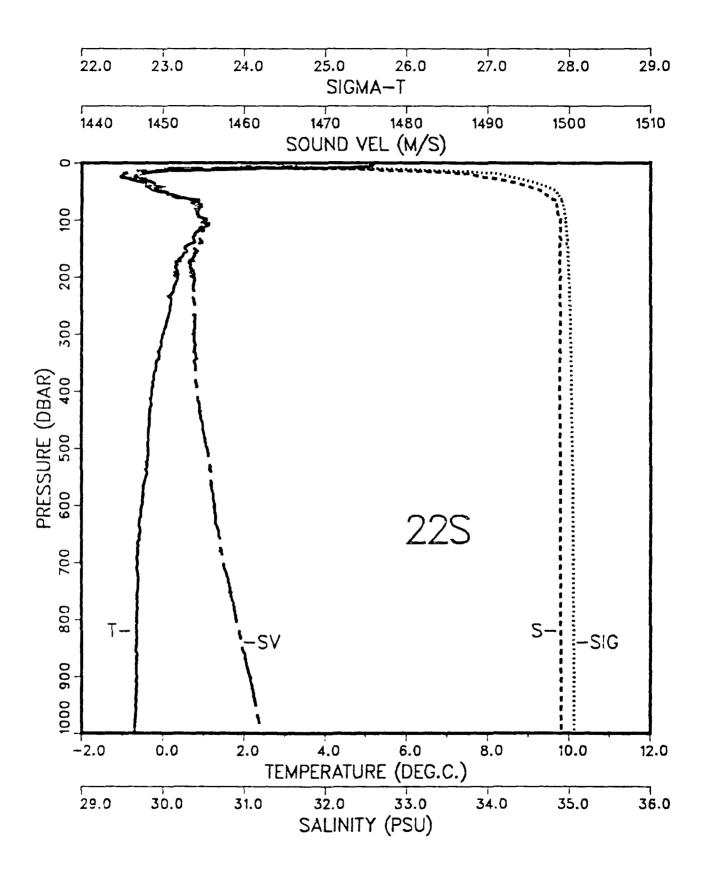


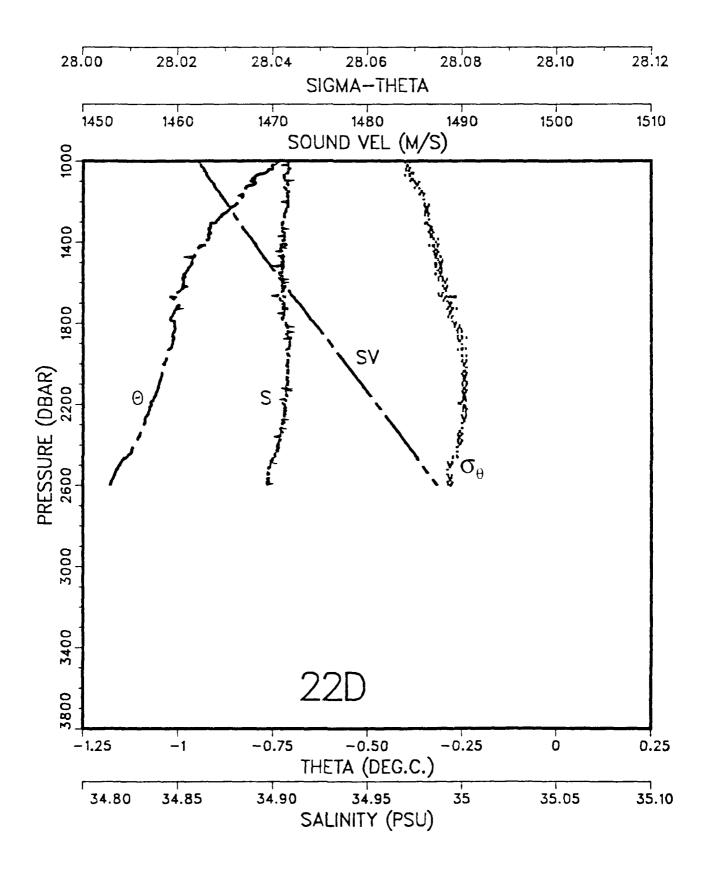


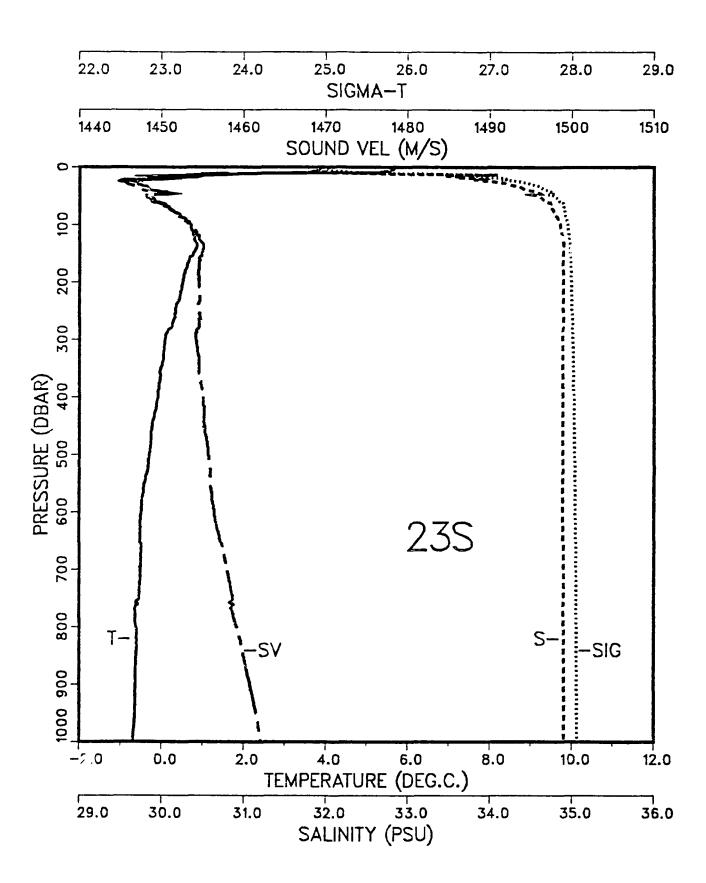


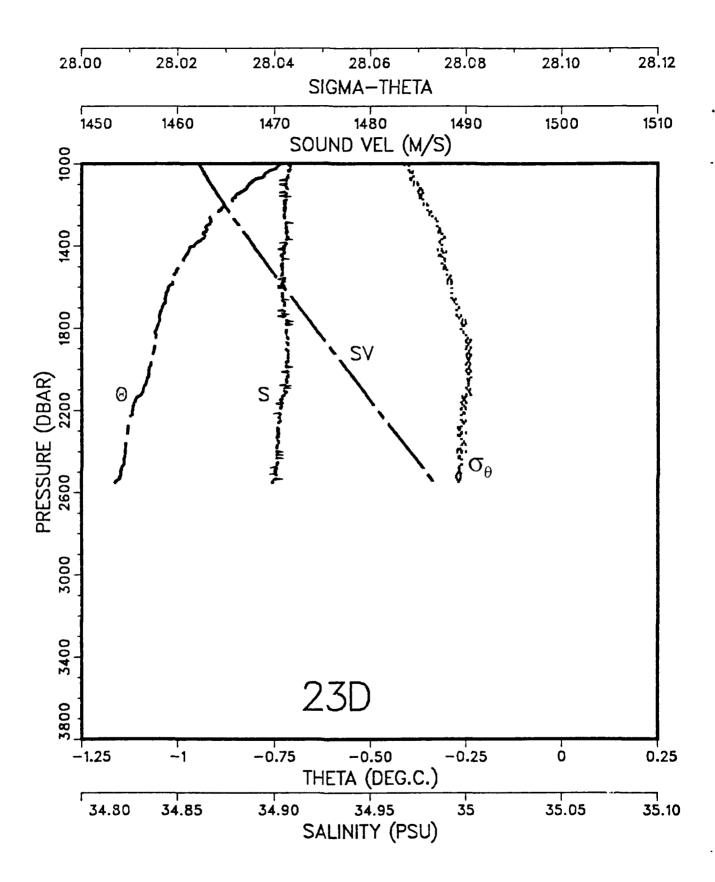


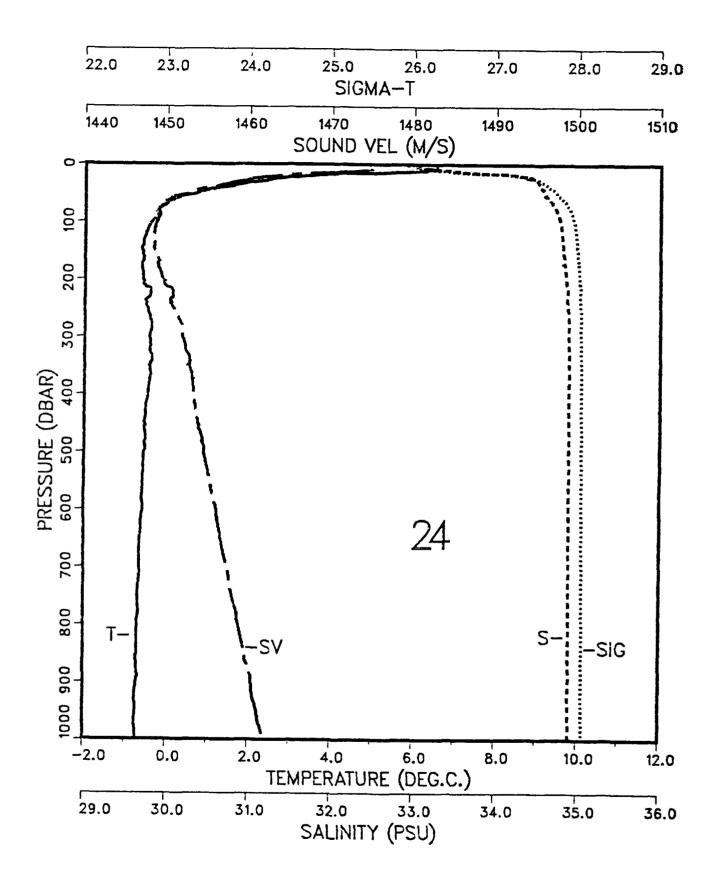


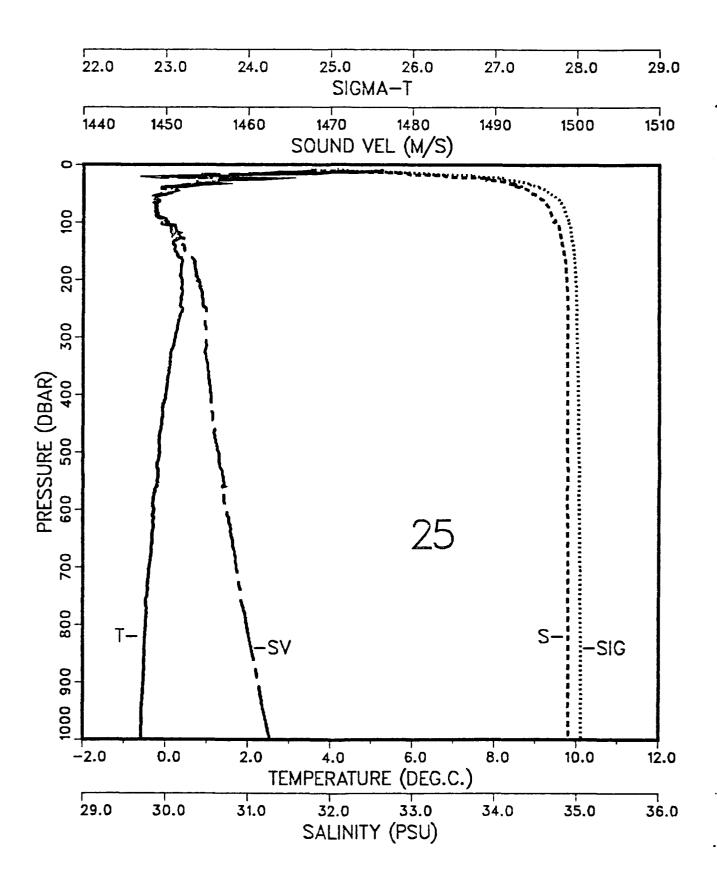


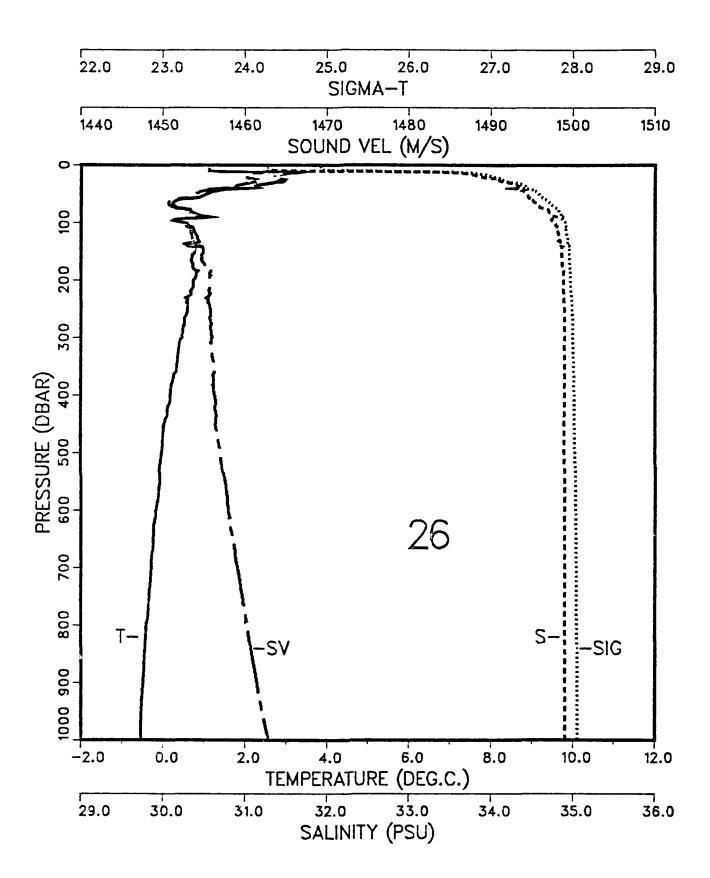


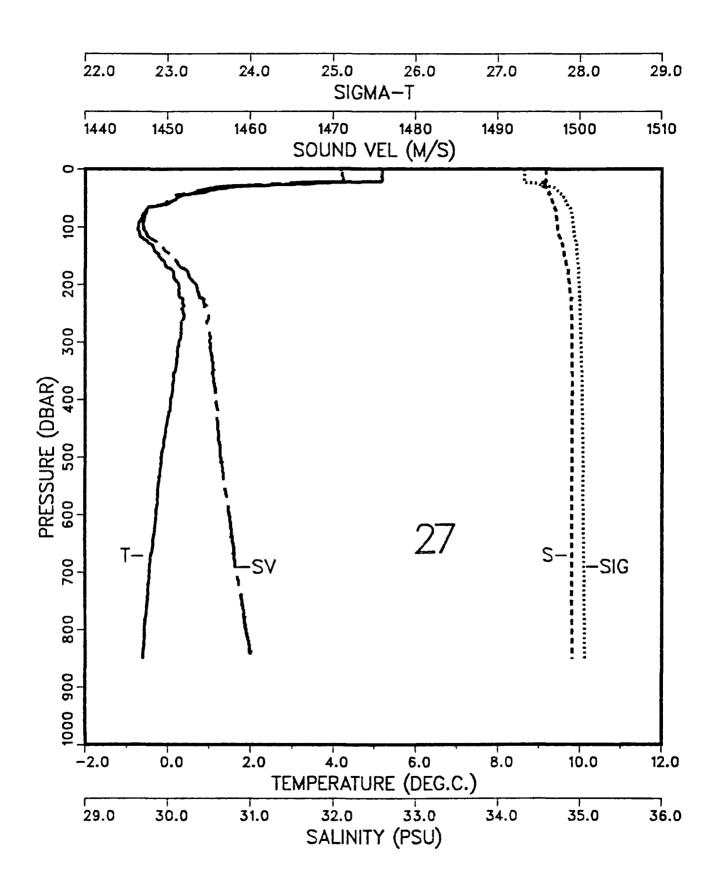


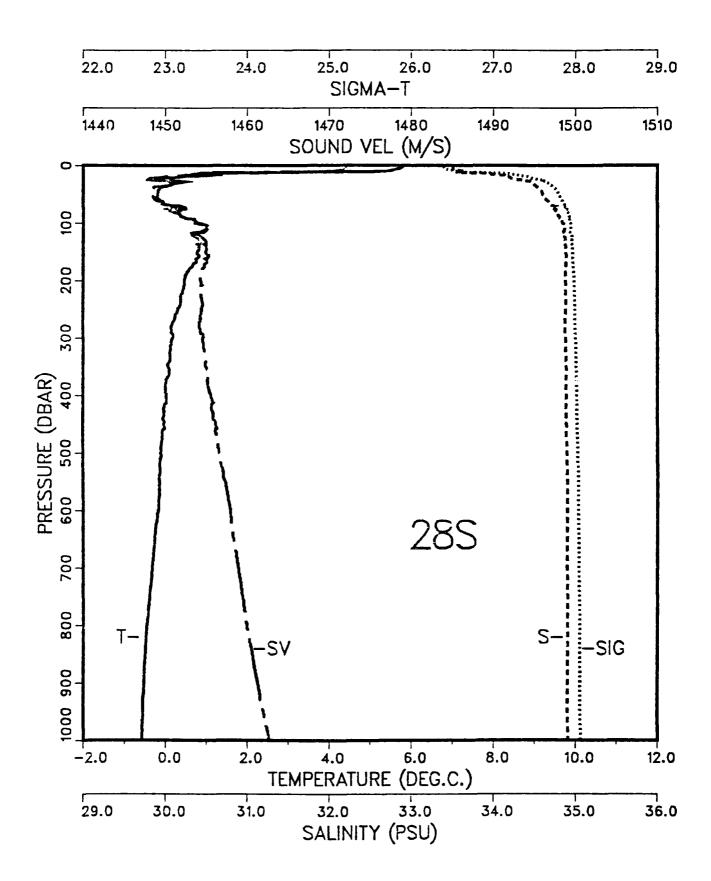


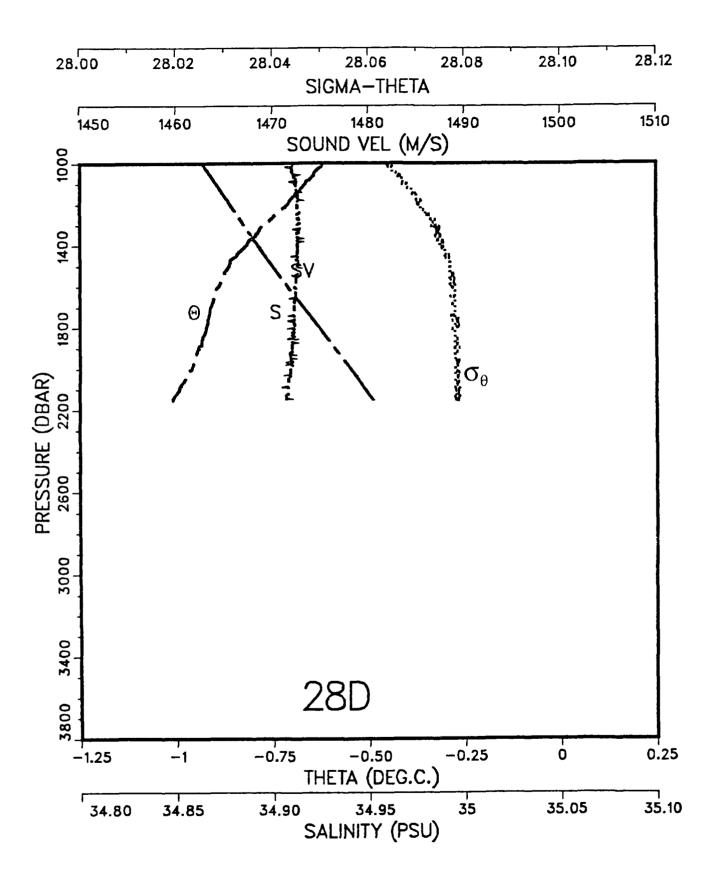


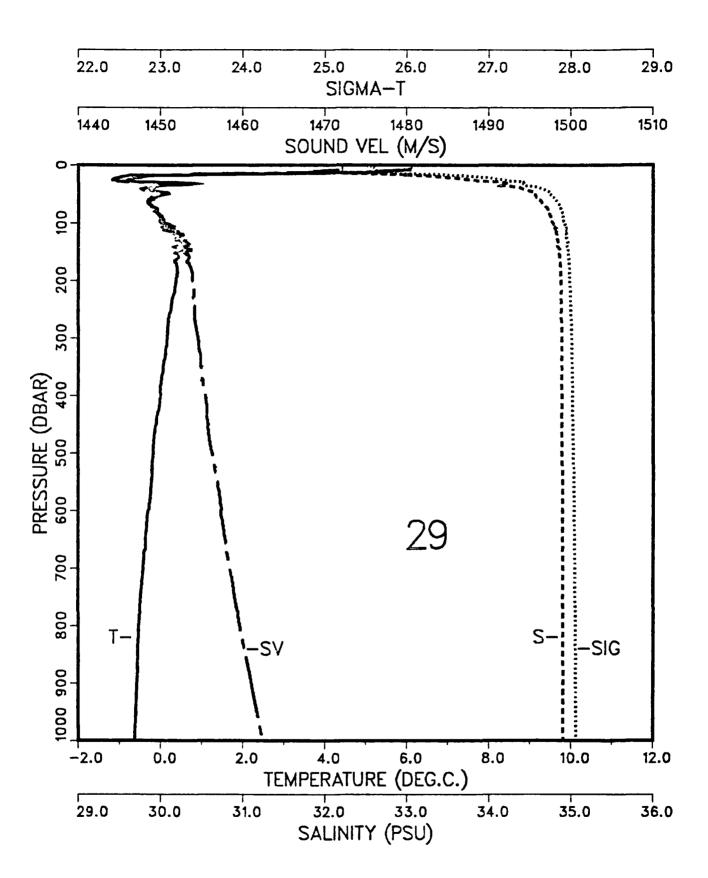


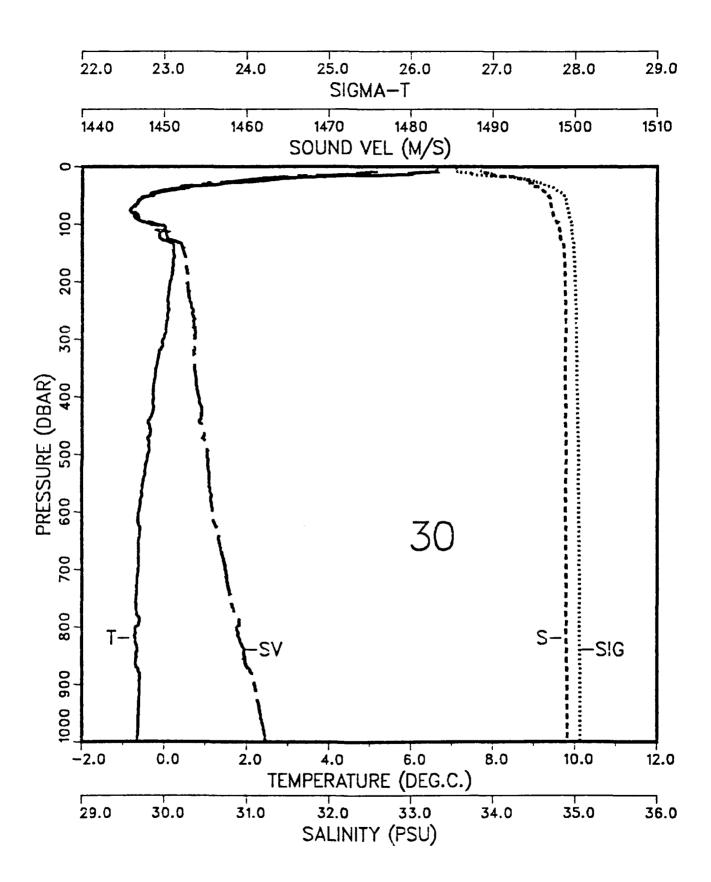


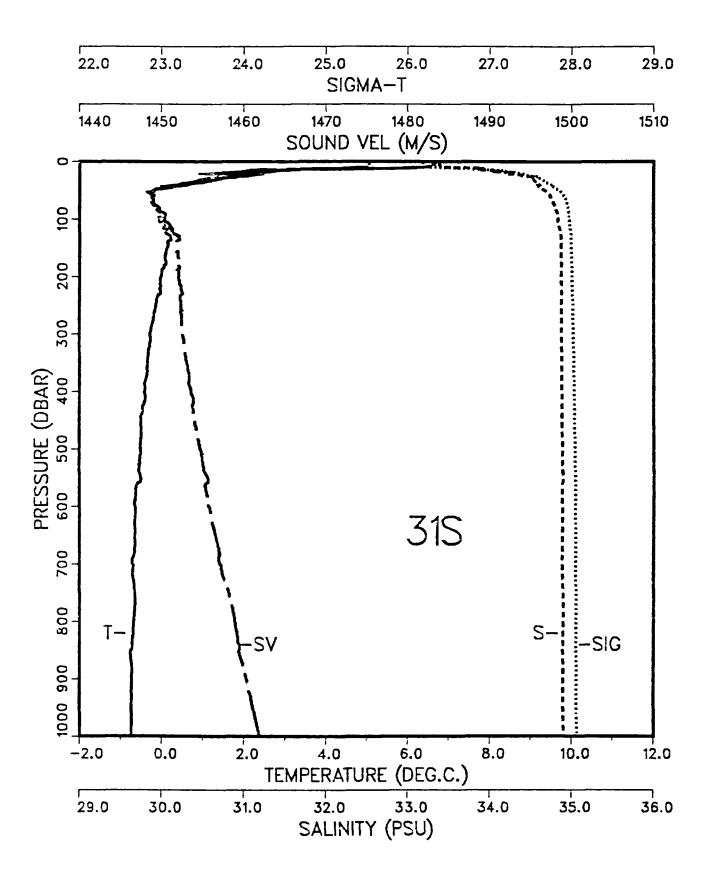


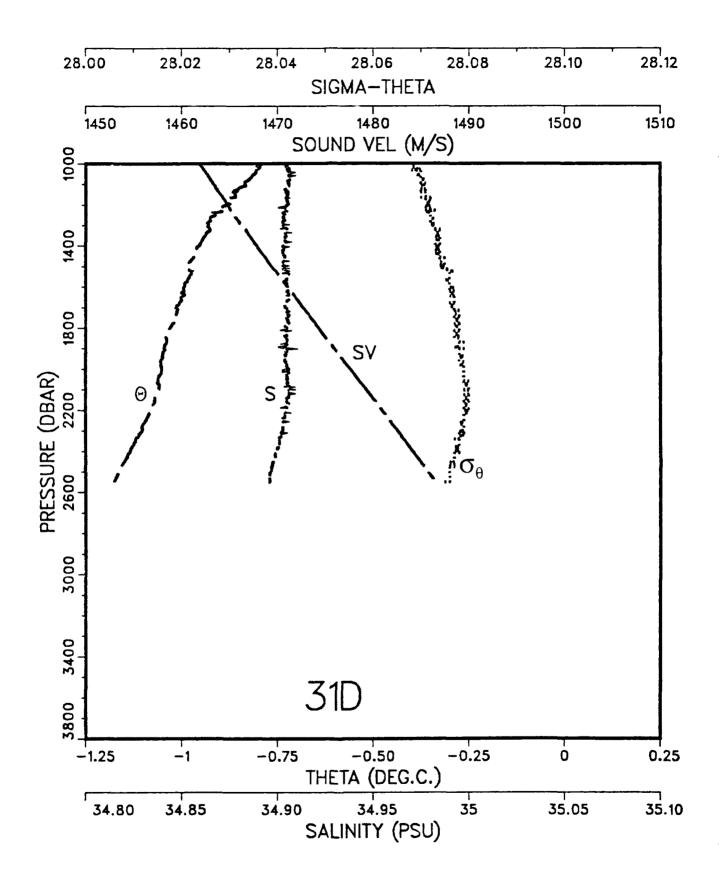


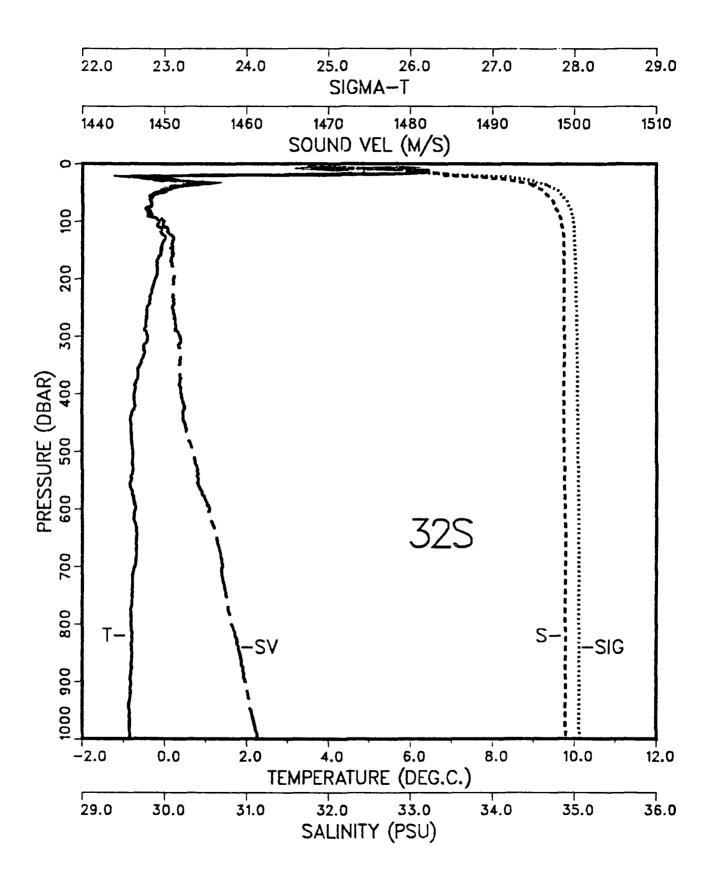


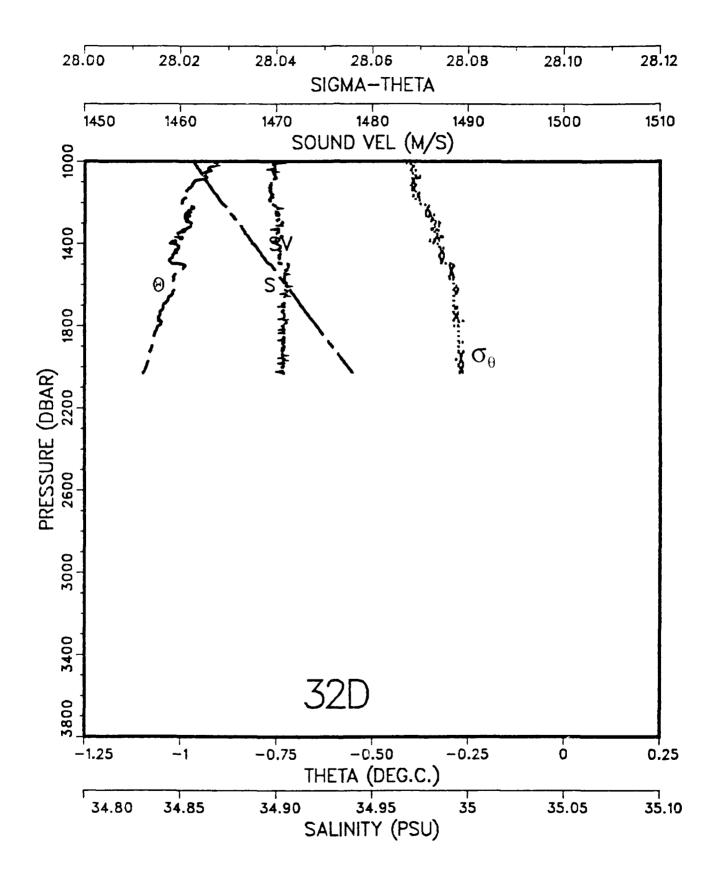


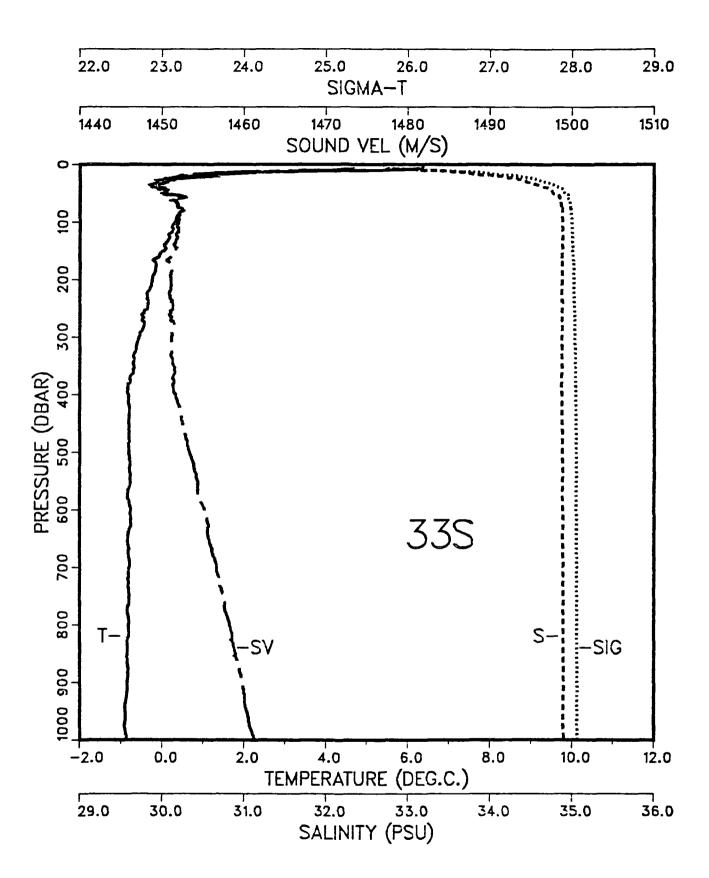


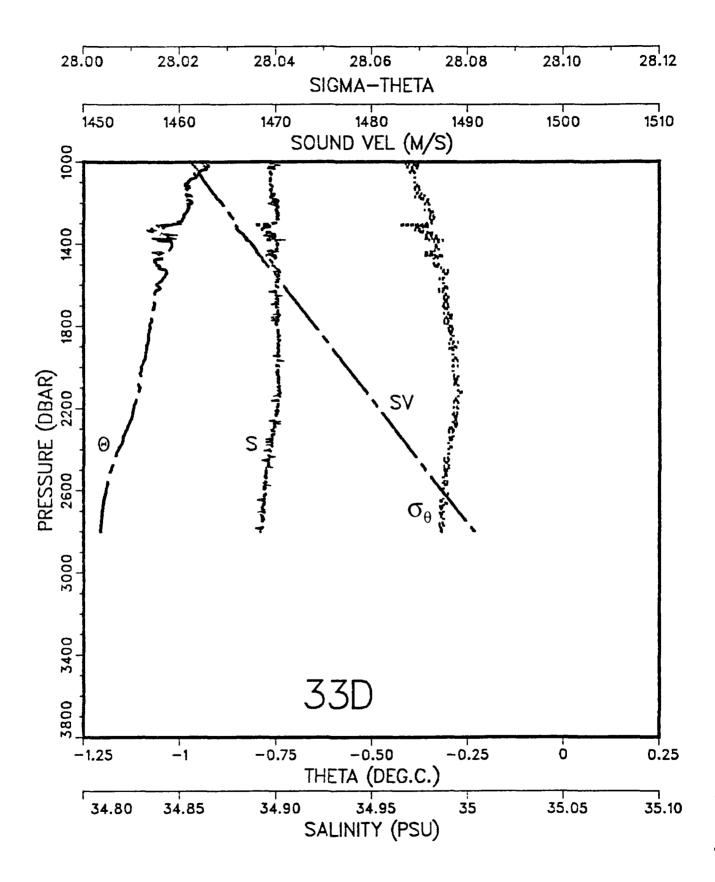


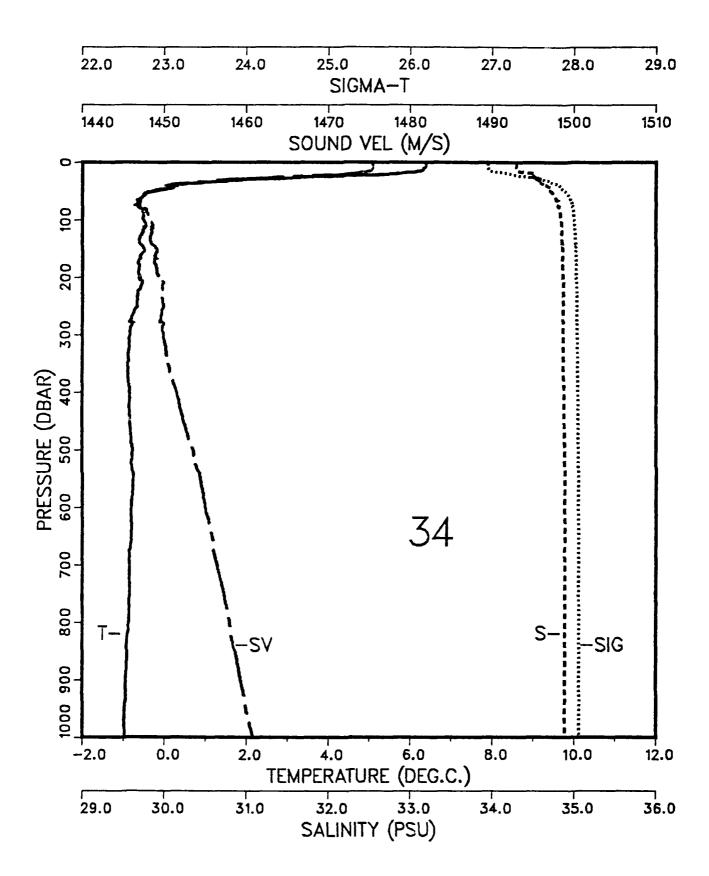


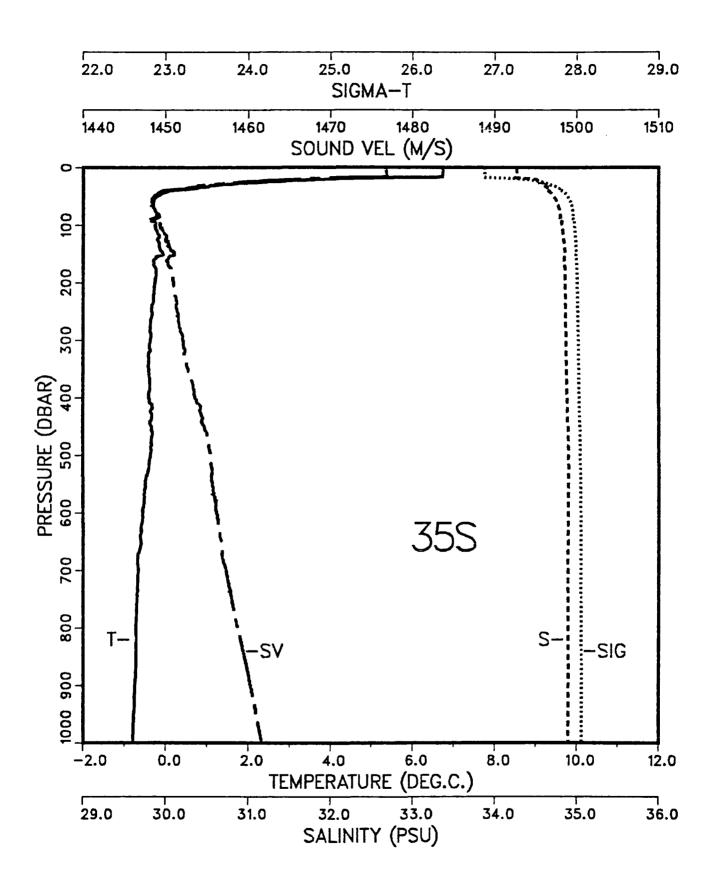


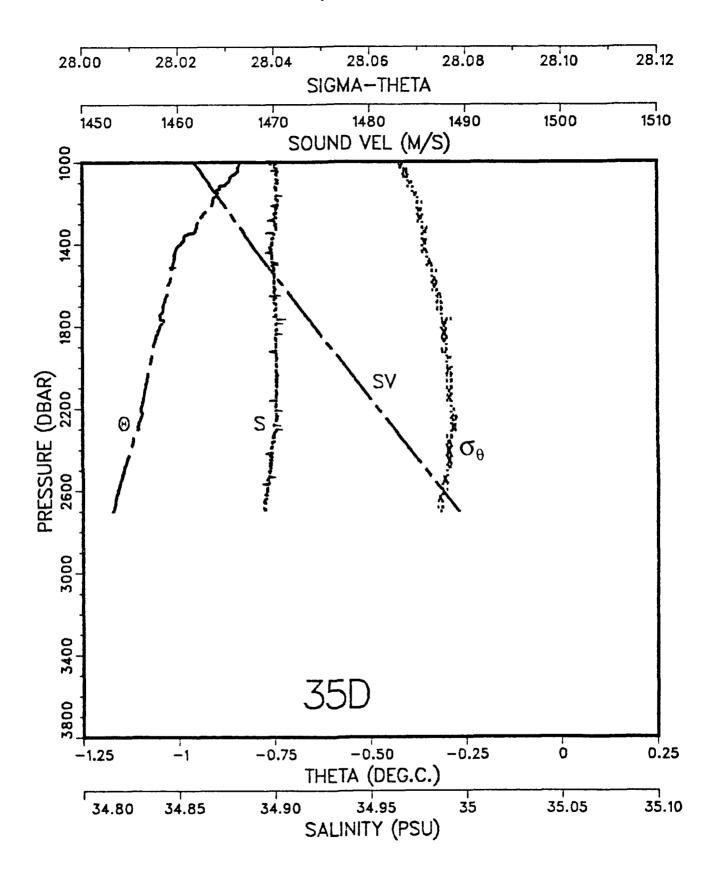


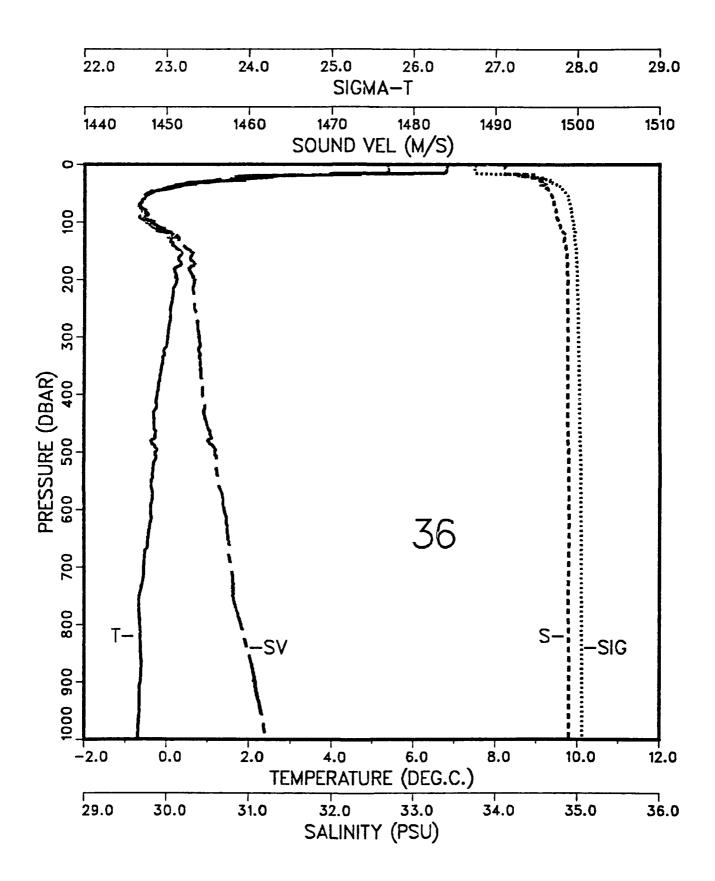


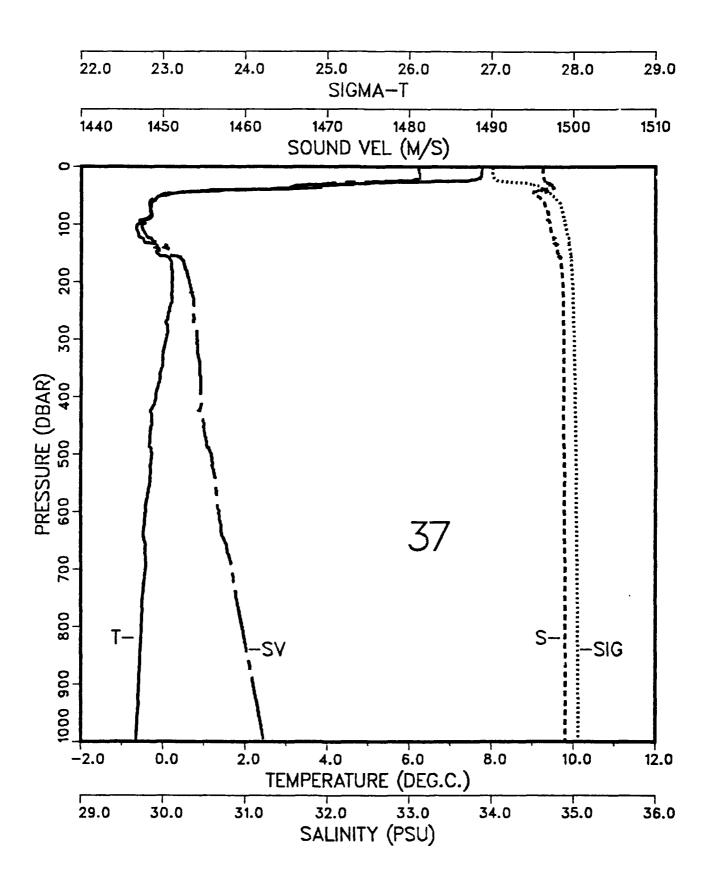


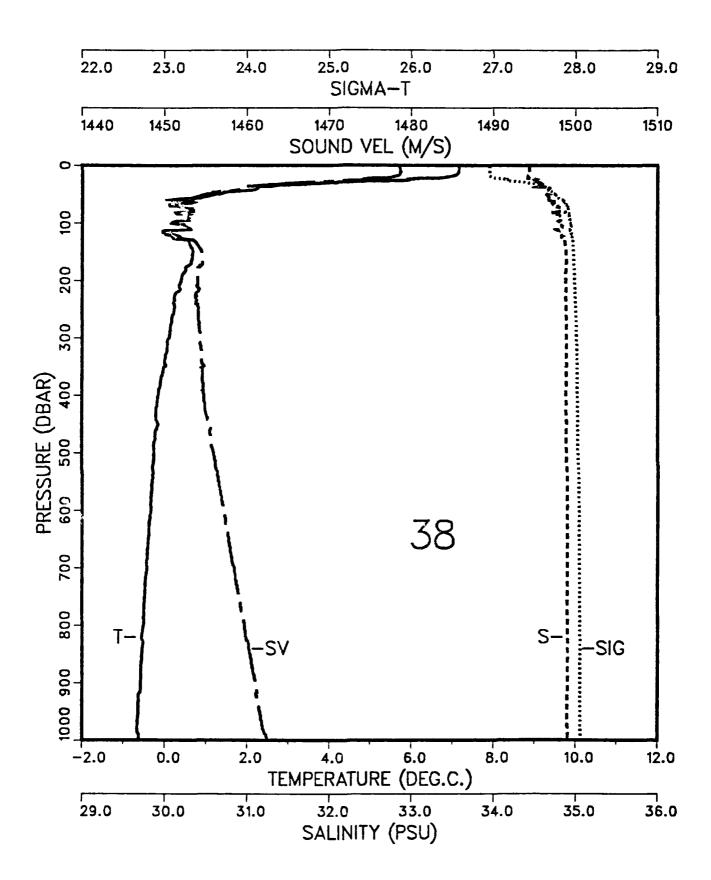


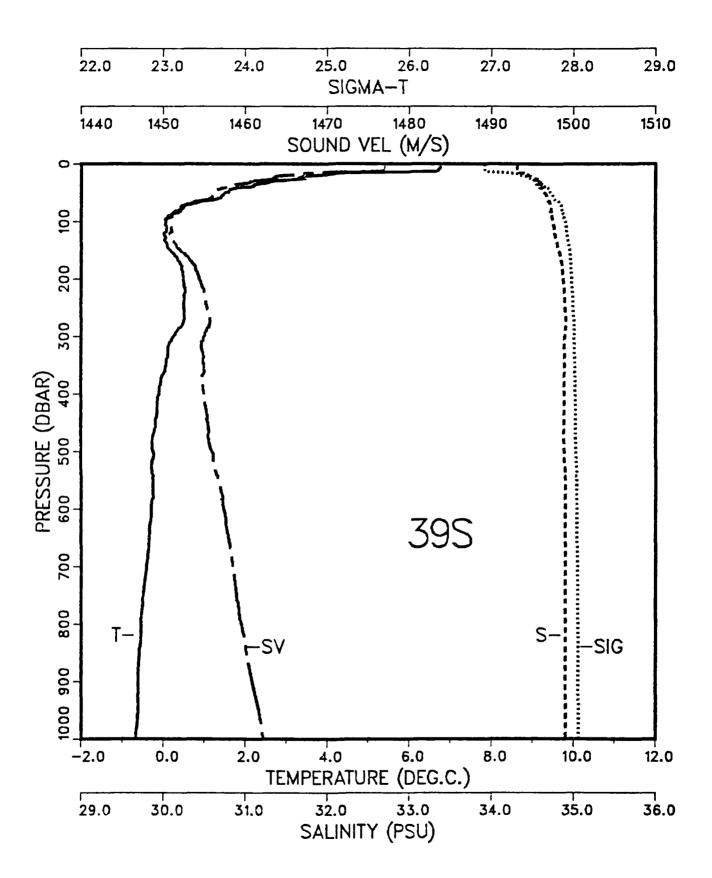


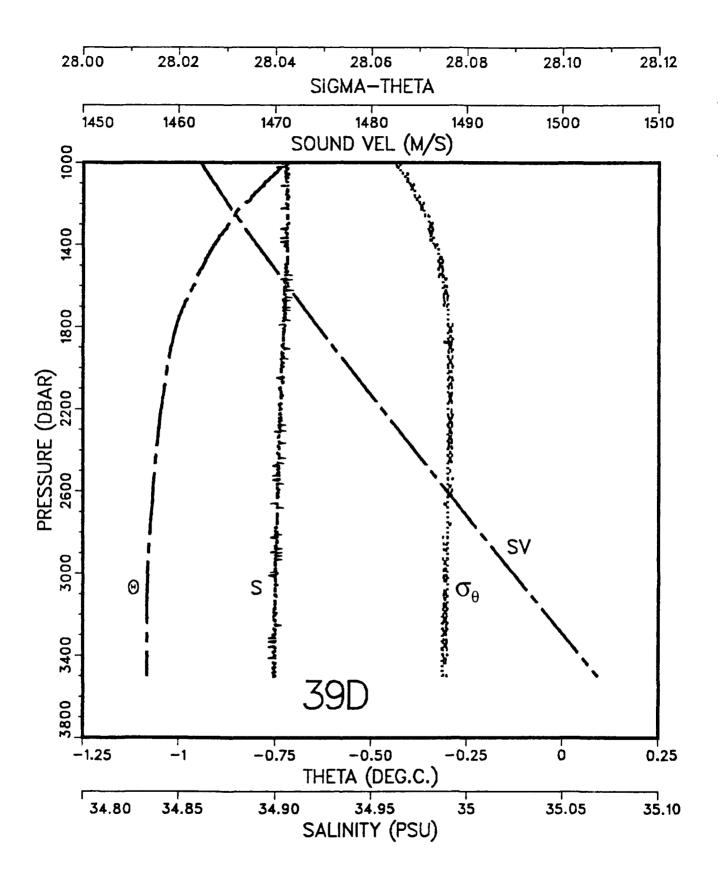


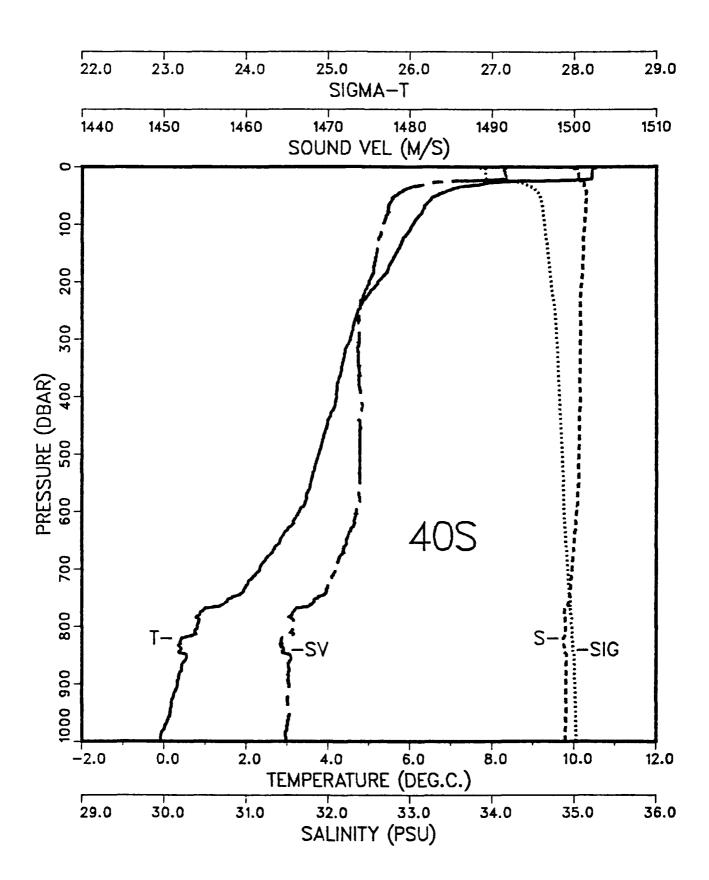


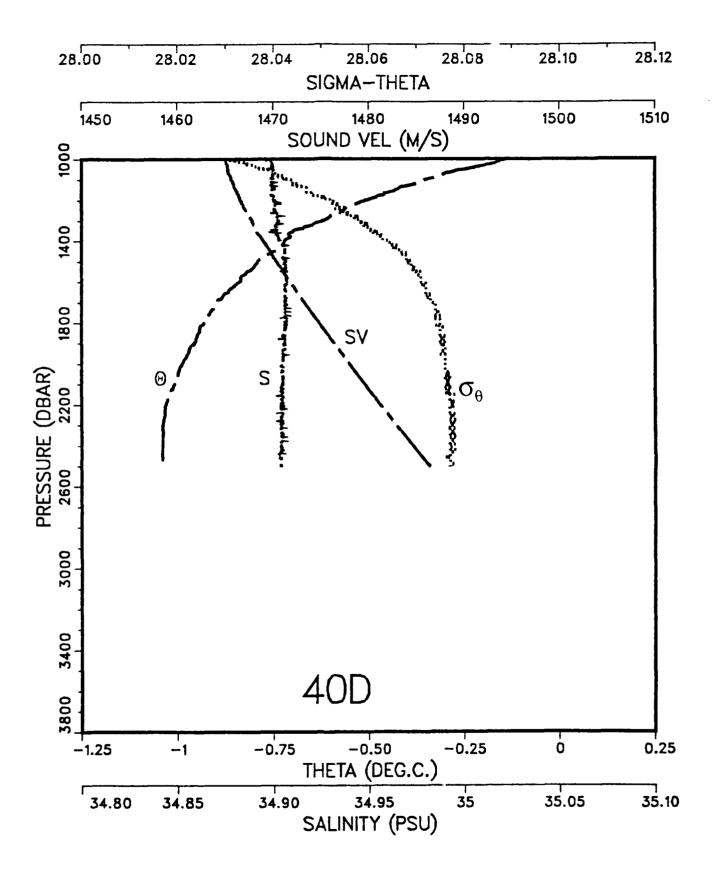


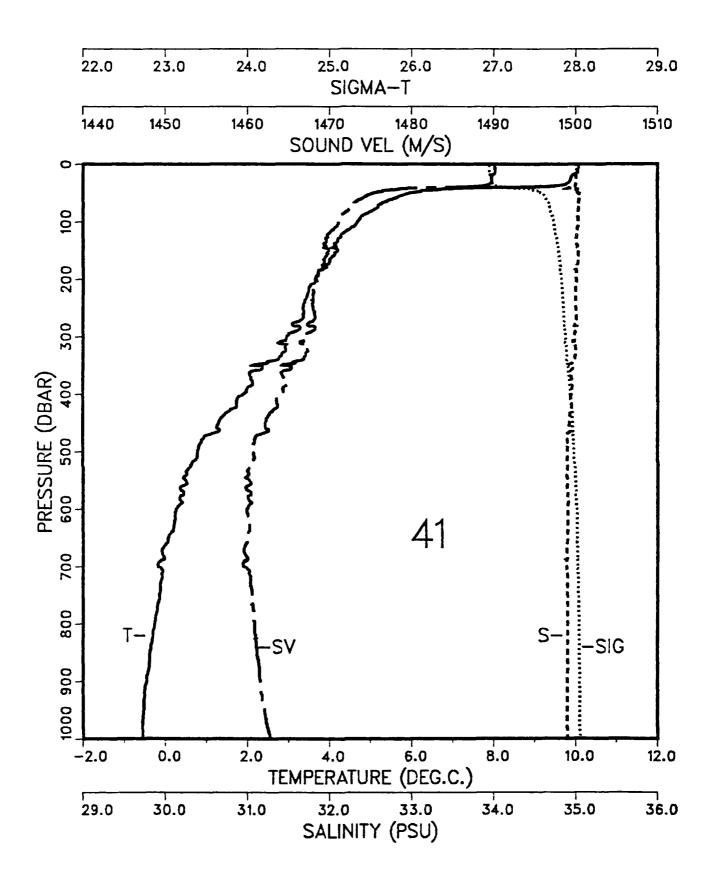


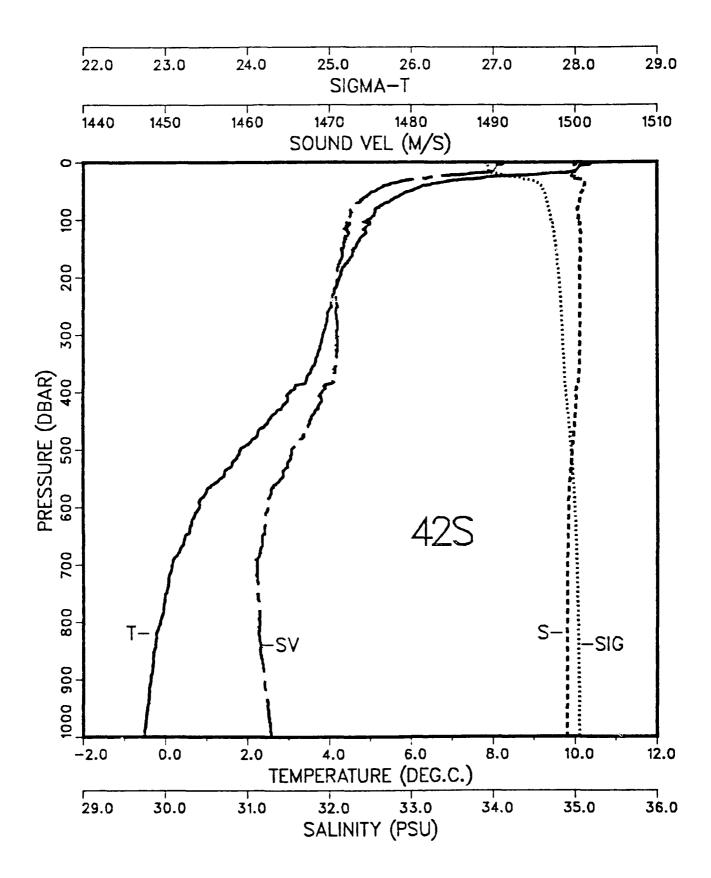


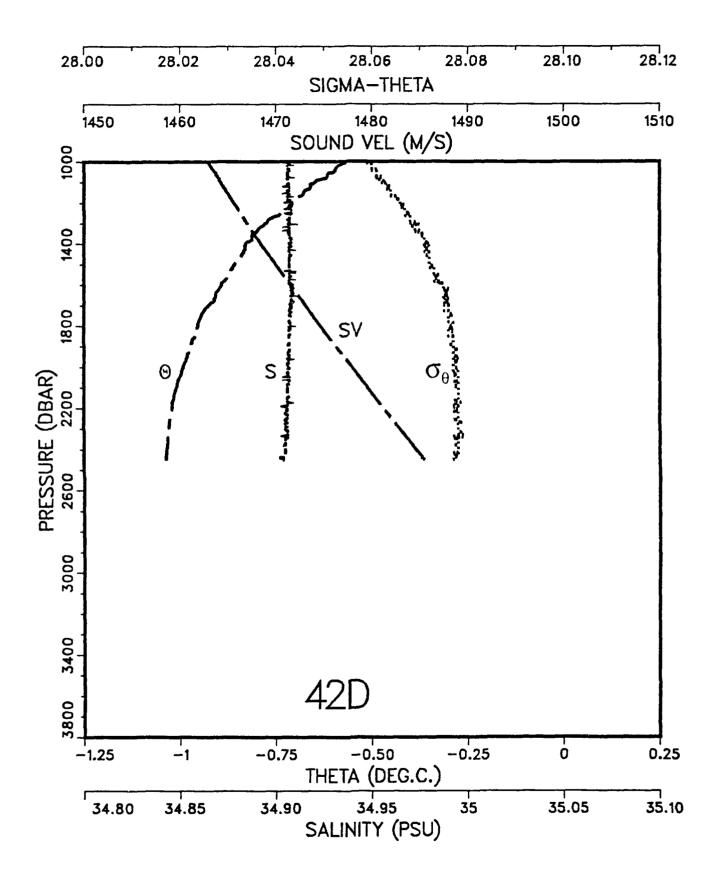


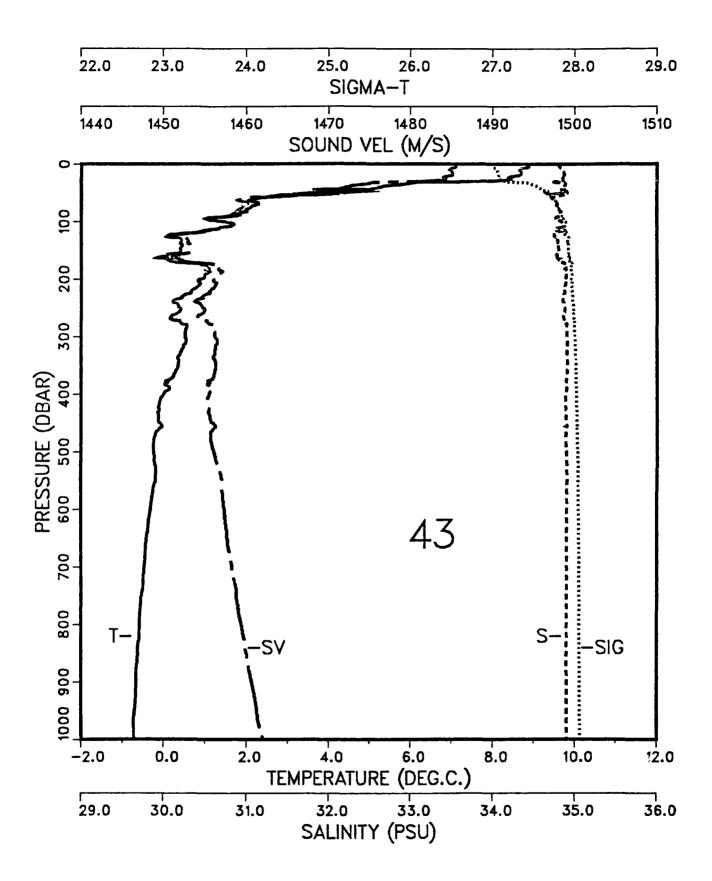


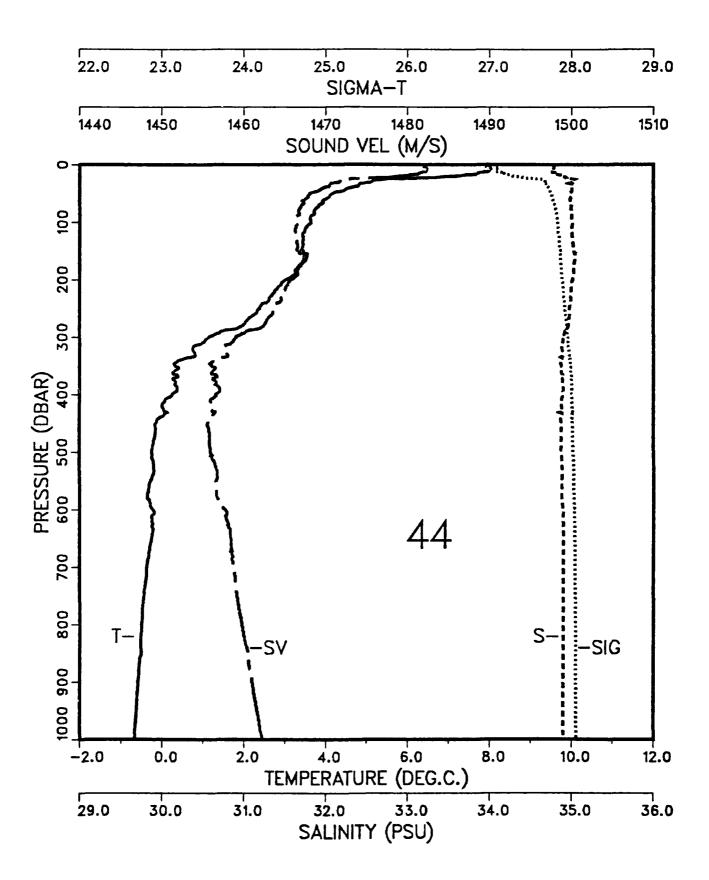












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